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Assessing School Turnarounds: Using an Integrative Framework to Identify Levers for Success

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Assessing School Turnarounds: Using an Integrative Framework to Identify Levers for Success

Abstract

Proposing an integrative framework that links Bryk and colleagues' five essential supports for school improvement and Porter and colleagues' policy attribute theory, I use a mixed-methods approach to study the implementation and effectiveness of school turnaround efforts in the School District of Philadelphia. Using a matched comparison design and estimating a series of regression models to analyze data from Philadelphia's central school improvement models as well as a group of comparison schools, I explore the relationships among key model components, approaches to implementing these components, and academic achievement. The use of an integrative framework for school improvement facilitates the unpacking of the idea of "success" in school reform, and careful examination of key reform components and implementation strategies provides insights into why particular school improvement models are (or are not) associated with gains in academic achievement. Qualitative methods are used to contextualize these findings and offer hypotheses to explain variation in essential supports, policy attributes, and achievement outcomes. This study facilitates the development of an empirically grounded theory of how implementation relates to effectiveness that proves useful in evaluating school turnaround, and in assessing how policymakers and implementers might leverage various aspects of implementation to create effective school improvement models at scale. Ultimately this study finds that how improvement models are implemented is more important than what key components models use in terms of explaining improvements in student achievement.

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ASSESSING SCHOOL TURNAROUNDS: USING AN INTEGRATIVE FRAMEWORK TO
IDENTIFY LEVERS FOR SUCCESS

Kirsten Lee Hill

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Kirsten Lee Hill

DEDICATION

I dedicate this dissertation to Gardner, Treasure, Quentin, and Roderick from Benjamin Banneker Elementary School in New Orleans, Louisiana. Serving as your Reading Buddy during my four years at Tulane University forever changed me. Words cannot describe my gratitude for the role each of you played in inspiring me to dedicate my life to improving public education.

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...

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...

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I love you all.

ABSTRACT

ASSESSING SCHOOL TURNAROUNDS: USING AN INTEGRATIVE FRAMEWORK TO
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Laura Desimone

Proposing an integrative framework that links Bryk and colleagues' five essential supports for school improvement and Porter and colleagues' policy attribute theory, I use a mixed-methods approach to study the implementation and effectiveness of school turnaround efforts in the School District of Philadelphia. Using a matched comparison design and estimating a series of regression models to analyze data from Philadelphia's central school improvement models as well as a group of comparison schools, I explore the relationships among key model components, approaches to implementing these components, and academic achievement. The use of an integrative framework for school improvement facilitates the unpacking of the idea of "success" in school reform, and careful examination of key reform components and implementation strategies provides insights into why particular school improvement models are (or are not) associated with gains in academic achievement. Qualitative methods are used to contextualize these findings and offer hypotheses to explain variation in essential supports, policy attributes, and achievement outcomes. This study facilitates the development of an empirically grounded theory of how implementation relates to effectiveness that proves useful in evaluating school turnaround, and in assessing how policymakers and implementers might leverage various aspects of implementation to create effective school improvement models at scale. Ultimately this study finds that how improvement models are implemented is more important than what key components models use in terms of explaining improvements in student achievement.

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CHAPTER 1: BACKGROUND AND CONTEXT

Over the past six years, federal initiatives such as Race to the Top, School Improvement Grants, and No Child Left Behind Waivers have promoted school turnaround models as part of what U.S. Secretary of Education Arne Duncan describes as an “overall strategy for dramatically reducing the drop-out rate, improving high school graduation rates and increasing the number of students who graduate prepared for success in college and the workplace” (U.S. Department of Education, 2009d, para. 6). Contrary to the prominence of school turnaround on the federal education policy agenda (e.g., Ayers, Owen, Partee, & Chang, 2012; Kutash, Nico, Gorin, Tallant, & Rahmatullah, 2010), research on the effectiveness of school turnarounds is limited in that the results are mostly anecdotal (e.g., de la Torre et al., 2012), there is no evidence of successful turnarounds at scale (e.g., Peck & Reitzug, 2013), and the research base is largely made up of case studies that cannot establish causality (e.g., What Works Clearinghouse, 2008). The dearth of research on school turnarounds is further complicated by semantics as turnaround is often used as a catchall for a variety of school improvement efforts (e.g., Zavadsky, 2012; What Works Clearinghouse, 2008). Even the U.S. Department of Education has taken to using the term to describe both a specific model of school improvement as well as an overall strategy for improving our nation’s lowest performing schools (U.S. Department of Education, 2009b). The ambiguity surrounding the term “turnaround” makes it difficult to interpret studies of school turnaround as researchers confound, fail to differentiate, or do not clearly identify critical differences among the various theories of change associated with models used to “turn around” schools.

School turnarounds came to the forefront of education reform in the United States in 2009 when the Obama Administration announced a variety of new education funding opportunities in the American Recovery and Reinvestment Act of 2009 (ARRA). This act outlined four models of “interventions for struggling schools” as part of the State Fiscal Stabilization Fund, School Improvement Grants (SIGs), and Race to the Top (U.S. Department of Education, 2009a, p. 35). These four models, discussed by the U.S. Department of Education as options for turning

around our nation's lowest performing schools, stem from, and refine, the five school restructuring options outlined by the No Child Left Behind Act of 2001 (NCLB) (American Institutes for Research, 2011; U.S. Department of Education, 2003). The four models are described as follows: 1) turnaround—hire a new principal, replace at least 50 percent of the staff, and implement a comprehensive plan for school improvement, 2) restart—reopen the school under the management of a charter or education management organization, 3) closure—close the school and re-assign students to higher-achieving schools, and 4) transformation—replace the principal and implement comprehensive instructional and organizational reforms (e.g., U.S. Department of Education, 2009a, p. 35).

In the literature review for this study, the bodies of literature on effective schools and comprehensive school reform (CSR), analyzed using Bryk and colleagues' framework of essential supports for school improvement and Porter and colleagues' policy attribute theory, respectively, serve as the foundation of an integrative framework for school improvement that hypothesizes a relationship between essential supports, policy attributes, and academic achievement. While implementation and effectiveness have historically been linked (e.g., Cohen & Ball, 1990; McLaughlin, 1987), the conceptual framework I use for studying school turnaround explicitly and directly links implementation and effectiveness, arguing that in order to assess success in schools, we ought to consider the effectiveness of a school improvement model within the context of not only key components of its reform strategy (i.e., the essential supports), but also the mechanisms it uses for implementing its strategy (i.e., the levels of policy attributes). Such a framework allows us to unpack the idea of "success" in school reform and use careful examination of reform components and implementation strategies to gain an understanding of why a particular school improvement model did or did not generate gains in academic achievement.

School turnaround is a critical reform model to study because, as a government-approved and encouraged overarching model for school improvement, turnarounds (both the namesake as well as transformations, restarts, and closures) are becoming increasingly popular

in districts across the nation. As the popularity of school turnaround as a model of reform grows, it is important to evaluate not only its effectiveness in terms of improving student achievement, but also the mechanisms through which the reform operates as well as other consequences (both negative and positive) of the reform. This study is set in the School District of Philadelphia (SDP), the nation's largest recipient of SIGs in 2010. The study takes place within the context of a larger, district-wide study on school improvement efforts that is being conducted as part of the Institute of Education Sciences, grant-funded, The School District of Philadelphia-Penn Graduate School of Education Researcher-Practitioner Partnership in Education Research (hereafter referred to as Shared Solutions). The SDP employs all four of the federal school improvement models, however, in conversations with the University of Pennsylvania's Graduate School of Education as part of the newly formed Shared Solutions partnership, the SDP identified the need for a study of what the District refers to as its "school turnaround model"—The Renaissance Schools Initiative (Stratos, Reitano, Wolford, & Miller, 2014). One of the central goals of the study is to shed light on how the different school turnaround models that make up the Renaissance Initiative operate in the District and also identify ways in which these models can be improved upon.

The Renaissance Initiative is comprised of District-operated turnaround schools (Promise Academies) as well as restarts—or charter, operator turnaround schools (Renaissance Charters) for which there are a number of providers. As will be discussed in Chapter 4 on research design and methodology, in this study, I put the thorny semantics of turnaround aside and consider each turnaround operator independently as a model of school improvement. The theory-driven evaluation detailed in this paper uses mixed methods to study the implementation and effectiveness of three different improvement models—the Mastery Charter Schools' model, the Universal Companies' model, and the Promise Academy model—within the context of a matched comparison design that tests the overall effectiveness of turning around schools. Specifically, my study uses regression, multivariate analyses of covariance, descriptive statistical analysis, as well as interview data to address the following research questions:

1. What is the relationship between the School District of Philadelphia's various approaches to school turnaround and academic achievement?
2. To what extent do the essential supports and policy attributes mediate the relationship between school turnaround and academic achievement?
3. What are the key components of the Mastery Charter Schools, Universal Companies, and the Promise Academy models of school improvement as measured by the essential supports?
 - a. How can we describe the implementation of the essential supports using policy attribute theory?
4. How do teachers' and principals' descriptions of their schools' approaches to improvement map on to the essential supports and policy attributes, and help to explain the relative successes and challenges of each school improvement model?

In the pages that follow, I will begin by reviewing the foundational components of the conceptual framework for the proposed study— first, the theory of essential supports within the context of the effective schools literature and second, policy attribute theory within the context of the literature on comprehensive school reform. Then, I will discuss these two theories in relation to one another, outlining the conceptual framework for this study—an integrative framework for school improvement that combines the two aforementioned theories. Presentation of my conceptual framework will be followed by a discussion of research design and methodology. To conclude, I will present results from my analyses and discuss the significant contributions this study makes to the research on school turnaround. I will additionally address the practical insights that this study provides into the important relationship between model components and their implementation which suggests how policymakers and implementers might leverage various aspects of implementation to create effective school improvement models at scale.

CHAPTER 2: REVIEW OF RELEVANT LITERATURE

Advancing studies of school turnaround requires a strong conceptual framework that can be applied to various models of school improvement in order to better understand the mechanisms through which reforms operate and what impacts these mechanisms have on the reforms' successes and/or failures. School turnaround's explicit goal of creating effective schools and the comprehensive nature of the reform, point to the value of considering the extensive bodies of literature on effective schools and comprehensive school reform (CSR) in developing a conceptual framework to guide a study of school turnaround. Research has outlined several defining characteristics of effective schools (e.g., Edmonds, 1979; Hallinger & Murphy, 1986; Purkey & Smith, 1983). Bryk, Sebring, Allensworth, Luppescu, & Easton (2010) operationalized these attributes of effective schools in their school improvement framework that identified and developed measures for five essential supports for school improvement: (1) School Leadership, (2) Parent-Community Ties, (3) Professional Capacity, (4) Student-Centered Learning Climate, and (5) Instructional Guidance. Additionally, in the CSR literature, there is research to support the applicability of using policy attribute theory, designed by Porter and colleagues (Porter, Floden, Freeman, Schmidty, & Schwille, 1986; Porter, Kirst, Osthoff, Smithson, & Schneider, 1993) to describe successful implementation of CSR models (see Desimone, 2002). Policy attribute theory holds that "the more specific, consistent, authoritative, powerful, and stable a policy is, the stronger its implementation will be" (Desimone, 2002, p. 433). The conceptual framework for this study proposes use of an integrative framework for school improvement that links Bryk and colleague's (2010) five essential supports for school improvement (from the literature on effective schools) with Porter and colleague's policy attribute theory (from the CSR literature) in order to shed light on the possible successes, challenges, and failures of turnarounds and how these success, challenges, and failures arise.

Effective Schools and the Framework of Essential Supports

The literature on effective schools defines success in terms of academic achievement as measured by student performance on standardized tests (e.g., Datnow & Stringfield, 2000;

Edmonds, 1979; Hallinger & Murphy, 1986; Mackenzie, 1983; Rosenholtz, 1985; Smith & O'Day, 1991). In this body of literature, researchers identify schools with high levels of academic achievement and then seek to determine the key attributes of these schools, inferring that these attributes are hallmarks of success (e.g., Edmonds, 1979; Purkey & Smith, 1983). The literature does not describe *how* to develop an effective school, but rather, *what* an effective school looks like, focusing on characteristics that define the school in terms of organization, culture, and process (e.g., Purkey & Smith, 1983). In essence, through case studies, outlier studies, and program evaluations, research on school effectiveness takes an inductive approach to determining the attributes of effective schools; researchers first identify schools that have been successful at improving student achievement, and then use qualitative research methods such as surveys, observations, and interviews to inductively profile these schools in terms of their key characteristics.

While there is a general consensus on the attributes of effective schools (e.g., Mackenzie, 1983), a significant limitation of this body of literature is that it lacks the clear conceptual framework necessary in order to provide common language and metrics for evaluating school effectiveness. Lack of such a framework diminishes the capacity for systematic research and limits researchers' abilities to integrate findings from various studies of school effectiveness. In this sense, the limitations of this body of literature hinder our ability to develop working theories and testable hypotheses that could eventually lead to a consistent, empirically grounded set of principles that define effective schools in various contexts, and additionally provide specific insights into how to develop these attributes of effective schools.

A major advancement in research on effective schools occurred in the 1990s when the attributes of effective schools were operationalized by a group of researchers at the Consortium on Chicago School Research (CCSR). Taking into consideration prior research on effective schools, organizational theory, as well as the CCSR's past and continuing work on reforms in Chicago Public Schools, these researchers proposed a framework that outlined five essential supports for school improvement: (1) School Leadership, (2) Parent-Community Ties, (3)

Professional Capacity, (4) Student-Centered Learning Climate, and (5) Instructional Guidance (Bryk et al., 2010). This framework, first discussed in a CCSR Research Report in 2006 by Sebring, Allensworth, Bryk, Easton & Luppescu, was developed “as a way to capture and summarize evidence-based findings on widely agreed-upon characteristics of good schools” (p. i). The framework of essential supports and evidence for these supports’ roles in improving schools is outlined extensively in Bryk et al.’s (2010) book, *Organizing Schools for Improvement: Lessons from Chicago*, the predominant source of information in this section and one of the foundational pieces of the conceptual framework for my study of school turnaround.

Bryk et al.’s (2010) work on the five essential supports for school improvement is groundbreaking in that the researchers not only created a conceptual framework that can be used to shape future studies of school effectiveness, but they also took the framework a step further by creating measures of the essential supports to empirically test their theory’s validity. Drawing on CCSR surveys that were administered biannually in Chicago beginning in 1991, Bryk and colleagues’ used Rasch-scale analysis to create measures that captured various aspects of the essential supports. The researchers then used factor analysis to combine these measures into factors that ultimately served as indicators for five organizational subsystems that are referred to as the five essential supports for school improvement (Sebring et al., 2006). These measures of the essential supports were tested within the context of a longitudinal study of public elementary school improvement in Chicago that took advantage of the district’s natural experiment in school decentralization prompted by the Chicago School Reform Act of 1988. This act, which gave authority and resources directly to the schools, was premised on the belief that “[i]f local school professionals reconnected to the parents and communities they were supposed to serve, and if these individuals were empowered to reform their schools, together they could be much more effective in solving the problems of their school communities than some impersonal public bureaucracy” (Sebring et al., 2006, p. 6; see also: Bryk et al., 2010). Due to the nature of the school decentralization reform in Chicago, the framework of essential supports was tested in an environment that guaranteed two key attributes of effective schools that are not captured by the

essential supports: (1) School-site management (e.g., Newmann & Wehlage, 1995; Purkey & Smith, 1983; Smith & O'Day, 1991), and (2) District-support (Mackenzie, 1983; Newmann & Wehlage, 1995; Purkey & Smith, 1983).

Bryk et al. (2010) describe their framework as a “living document,” emphasizing that it should continue to be tested and revised in research on school improvement (p. 70). While Bryk et al.'s study does not support causal claims about the impact of the essential supports on school improvement, the framework of essential supports for school improvement is grounded in, and supported by, the effective schools literature and has additionally been validated by the extensive survey and achievement data collected on several hundred elementary schools over the course of Bryk and colleagues' seven year study. Furthermore, Bryk et al. (2010) have taken care to analyze the reliability and validity of their measures of the essential supports which have not only been refined and honed over many years but also validated by other independent field studies (p. 70).

While the framework of the essential supports for school improvement effectively operationalizes the extensive literature on effective schools, providing us with a means of measuring the presence of the attributes associated with effective schools as well as evidence of their relationships with each other and with student achievement, it is important to note a significant limitation of Bryk et al.'s (2010) research in Chicago—it is a correlational, not causal study. Researchers found significant evidence that strengths in the essential supports are strongly correlated with improvements in academic productivity¹ while weaknesses in the essential supports are strongly correlated with stagnation; however, there is not “evidence to claim that strength in the essential supports *caused* the improvements in academic productivity” (emphasis added) (Sebring et al., 2006, p. 29). Notwithstanding the lack of causality, the researchers do believe there is ample evidence to support their claim that school leadership, parent-community ties, professional capacity, student-centered learning climate, and instructional

¹Improvement was measured by creating an “*academic productivity profile*” that utilizes test scores from the Iowa Test of Basic Skills (ITBS) and “summarizes each school's contributions to student learning and how this value-added may change over time” (Bryk et al., 2010, p. 33)

guidance are “essential” to long-term school improvement” (Sebring et al., 2006, p. 29). Before moving on to a discussion of Bryk et al.’s (2010) findings, the implications of these findings for the implementation of comprehensive school reforms, and how the essential supports relate to my study of school turnaround, I will provide an overview of each of the five essential supports for school improvement, linking them to the larger literature on effective schools through the careful definition of each support and its sub-dimensions.

School leadership. Bryk et al. (2010) identify school leadership, the first essential support for school improvement, as the “driver for change,” linking leadership to the development of the remaining four essential supports: parent-community ties, professional capacity, student-centered learning climate, and instructional guidance (p. 45; see also: Sebring et al., 2006). Teacher surveys were used as the primary measure of school leadership as an essential support (Bryk et al., 2010). Using teachers’ perceptions of school leadership and the implementation of reform at their schools as the foundation of a composite measure of school effectiveness speaks to the importance of teacher buy-in and engagement that is emphasized in the literature on effective schools and comprehensive school reform as a critical component of school improvement (e.g., Lee, Bryk, & Smith, 1993; Purkey & Smith, 1983; Smith & O’Day, 1991). In measuring school leadership, the authors distinguish among three dimensions of school leadership: 1. Managerial, 2. Instructional, and 3. Inclusive-facilitative (Bryk et al., 2010; Sebring et al., 2006).

In the literature on effective schools, Edmonds (1979) points out the importance of balancing management and instructional skills in leadership, and Rosenholtz (1985) identifies strong managerial leadership as critical to protecting instructional time within a school. However, in the effective schools literature overall, as Bryk et al. (2010) note, managerial leadership is often overlooked. While Bryk et al. (2010) do underscore the important role managerial leadership plays in improving schools, they ultimately also overlook the vital role of managerial leadership in school improvement as they were unable to develop an adequate measure for this dimension of leadership to include in their study. Grissom and Loeb’s (2011) study of school-level leadership in

the Miami-Dade County Public Schools supports Bryk et al.'s belief that managerial leadership is critical to improving schools, as the researchers found that organizational management impacts student achievement. For this study, Grissom and Loeb (2011) developed a task effectiveness inventory to capture aspects of managerial leadership. This survey instrument has the potential to complement Bryk et al.'s (2010) school leadership measures in future studies.

Bryk et al. (2010) consider the managerial dimension of school leadership to be a pre-requisite for school improvement, explaining that without effective management to ensure that school supplies and resources are allocated properly, that a schedule is set and enforced, and that other administrative tasks are consistently taken care of, it is difficult for a school to function smoothly let alone improve (Bryk et al., 2010). The idea of managerial leadership as a prerequisite for school improvement is consistent with studies that find managerial leadership impacts two other dimensions of school leadership which are also vital for school improvement—namely, instructional leadership and inclusive-facilitative leadership (e.g., Grissom & Loeb, 2011; McGuigan & Hoy, 2006).

Instructional leadership, Bryk et al.'s (2010) second dimension of school leadership, is widely noted in the effective schools literature as an important contributing factor to school effectiveness (e.g., Edmonds, 1979; Hallinger & Murphy, 1986; MacKenzie, 1983; Purkey & Smith, 1983; Rosenholtz, 1985; Rowan, Bossert & Dwyer, 1983). More recent research on school leadership also emphasizes the importance of instructional leadership, concluding that instructional leadership both directly and indirectly affects student achievement (e.g., Hallinger & Heck, 1998; Marks & Printy, 2003; Seashore Louis, Dretzke, & Wahlstrom, 2010). In conceptualizing instructional leadership, Bryk et al. (2010) include supplemental measures that capture other key aspects of effective schools outlined in the broader literature such as: (1) clear, shared goals and high expectations, (2) relevant professional development, and (3) institutionalized evaluation and feedback mechanisms (e.g., Mackenzie, 1983; Newmann & Wehlage, 1995; Purkey & Smith, 1983; Rosenholtz, 1985). Research on instructional leadership supports Bryk et al.'s inclusion of these supplemental measures of instructional leadership. In

fact, research has found that instructional leadership indirectly impacts student achievement through mechanisms such as setting goals and expectations, providing feedback and evaluation, and performing managerial tasks that protect the instructional core (e.g., Fancera & Bliss, 2011; Hallinger, & Heck, 1998; Robinson, Lloyd, & Rowe, 2008; Seashore Louis, Dretzke, & Wahlstrom, 2010).

The final dimension of school leadership, inclusive-facilitative leadership, speaks to a principal's ability to engage and motivate stakeholders in pursuing a shared vision of reform (Bryk et al., 2010). While not explicitly mentioned in the literature on effective schools, Bryk et al.'s (2010) concept of inclusive-facilitative leadership incorporates attributes of effective schools such as shared-decision making (e.g., MacKenzie, 1983; Rosenholtz, 1985), a sense of community within the school (e.g., Purkey & Smith, 1983), and parent/community involvement in the school (e.g., Hallinger & Murphy, 1986; Lee, Bryk, & Smith, 1993). Recent literature on school leadership—especially literature on transformational and distributed leadership—also highlights the importance of collaboration and the engagement of various school stakeholders in facilitating sustainable school improvement (e.g., Copland, 2003; Hallinger & Heck, 2010; Spillane, Halverson, & Diamond, 2001).

As Bryk et al. (2010) explain, leadership is critical to improving schools because strong leaders: “build agency for change at the community level, nurture the leadership of others through a shared vision for local reform, and provide the necessary guidance over time to sustain a coherent program of schoolwide development” (pp. 45-46). Emphasizing this comprehensive role of a leader, in creating their measures of instructional and inclusive-facilitative leadership, Bryk et al. (2010) put forth a broader conceptualization of school leadership that considers not only principals' perceived impact on school organization, but also the important role of staff, parent, and community leadership in improving student achievement (see also: Sebring et al., 2006). To properly measure their holistic conceptualization of school leadership, Bryk et al. (2010) supplemented their survey questions about inclusive and instructional leadership with additional questions intended to directly measure teacher influence, Local School Council contribution,

program coherence and stability, and School Improvement Plan implementation (see also: Bryk, Sebring, Allensworth, Luppescu, & Easton, 2009). These supplemental questions, which were included in the analysis as indicators of school leadership, capture the aforementioned widely agreed upon attributes of effective schools such as clear goals and high standards, use of evaluation and feedback mechanisms, and a sense of community. They also incorporate two additional components of effective schools: (1) a strong curriculum that is aligned with school goals, and (2) school organization that supports teacher instruction (e.g., Hallinger & Murphy, 1986; Purkey & Smith, 1983; Rosenholtz, 1985; Smith & O'Day, 1991).

These additional indicators of school leadership clearly overlap with other essential supports, for example: parent-community ties, professional capacity, and instructional guidance. By including indicators that address the other essential supports as part of their measure of school leadership, Bryk et al. (2010) emphasize the impact school leadership has on the other essential supports for school improvement, clearly conveying its role as a driver of change (Bryk et al., 2010). While Bryk et al.'s argument for leadership as a driver for change is consistent with the literature on school leadership that has found school leadership to be critical for building school capacity for improvement (e.g., Hallinger & Heck, 2010; Wiley, 2001), research also suggests that just as leadership can impact school capacity, school capacity can impact leadership—that is, there are reciprocal effects of leadership and context, and consequently, it is important for researchers to contextualize leadership within school context (e.g., Hallinger & Heck, 2010; Leithwood, Patten, & Jantzi, 2010; Neumerski, 2013; Robinson, 2010).

Parent-community ties. The importance of engaging with parents and the local community is widely recognized in the literature on effective schools (e.g., Hallinger & Murphy, 1986; Lee, Bryk, & Smith, 1993; Purkey & Smith, 1983; Smith & O'Day, 1991). Bryk et al. (2010) view the essential support of parent-community ties as a subsystem that “h[as] direct effects on students’ motivation and school participation and [that] can have a direct influence on the efficacy of work within the instructional triangle” (Bryk et al., 2010, p. 57). To measure the strength of parent-community ties, Bryk et al. (2010) used teacher surveys that asked about teacher

outreach, communication, and interaction with parents as well as parent involvement in the school, such as volunteering in the classroom, fundraising, and attending parent-teacher conferences (see also: Bryk et al., 2009; Sebring, et al., 2006).

Bryk et al. (2010) identify three core elements of this subsystem. The first core element is “supporting parents to support learning” (Bryk et al., 2010, pp. 57-58). To measure “supporting parents to support learning” as a core element of parent-community ties, Bryk et al. (2010) considered teachers’ outreach to parents as well as parents’ involvement in the school, creating a composite indicator termed “Parent Involvement” (p. 72). The positive impact of parent involvement on student academic achievement is supported by extensive research (e.g., Brown, Benkovitz, Muttillio, & Urban, 2011; Epstein, 1991; Epstein & Dauber, 1991; Fan & Chen, 2001; Hill & Tyson, 2009; Zellman & Waterman, 1998). As discussed by Bryk et al. (2010), in the literature on effective schools (e.g., Hallinger & Murphy, 1986; Lee, Bryk, & Smith, 1993; Purkey & Smith, 1983; Smith & O’Day, 1991), and in Epstein’s (1987) extensive research on family involvement (see also: Epstein et al., 1997; Epstein & Dauber, 1991), teachers can facilitate parent involvement by holding parent-teacher conferences and open houses, reaching out to parents in order to discuss goals and responsibilities, encouraging parents to read at home with their children, and sending home school newsletters that update parents on classroom activities and how they can support their children at home. By facilitating the development of common goals and understandings with regard to student learning and enhancing parental involvement in their children’s school life, teachers can strengthen parenting roles, help to create a home environment that is supportive of student learning (and therefore of school improvement), and additionally build strong social ties with parents (e.g., Bryk et al., 2010; Sebring et al., 2006). As Bryk et al. (2010) note, such ties “represent a significant resource for diverse school improvement initiatives, from enhancing safety in and around schools, to addressing problems of absenteeism and tardiness, to assuring more consistent and effective homework sessions” (p. 58). While specific mechanisms of facilitating parent involvement have been identified (e.g., Epstein 1987; Epstein & Dauber, 1991), to further research on parent involvement, researchers have suggested

the importance of considering parental beliefs (e.g., Whitaker & Hoover-Dempsey, 2013), why parents get involved (e.g., Hoover-Dempsey & Sandler, 1995), the specific mechanisms through which parental involvement operates (e.g., Zellman & Waterman, 1998), and the role of teachers in facilitating parental involvement (e.g., McCormick, Cappella, O'Connor, & McClowry, 2013).

The second core element of parent-community ties is “teacher’s knowledge about their students’ home culture and community” (Bryk et al., 2010, p. 58). This aspect of parent-community ties is linked to the literature on progressive education and critical pedagogy (e.g., Dewey 1938; Freire, 1970). In these traditions, effective teaching that results in student learning and growth is dependent on the teacher understanding each child and his or her background—including the experiences, interests, knowledge, and skills that each child brings with him or her into the classroom. As Bryk et al. (2010) explain, “knowing children well is essential to the effective design of classroom lessons that advance academic learning for all” (p. 58).

The final core element of parent-community ties is “school-community partnerships” which includes provision of supplemental services such as tutoring, medical or mental health care, recreational activities, and youth organizations (pp. 57-58; see also Sebring et al., 2006). Such partnerships provide schools with resources and/or opportunities to ensure that the needs of the whole child are being met. The importance of this element of parent-community ties was recognized by Epstein (1992) when she added “collaborations and exchanges with community organizations” to her framework of parent involvement (Epstein & Dauber, 1991, p. 291). This element of parent-community ties is also implicated in Bryk et al.’s (2010) composite index of school community conditions that was used to capture the extent of communities’ social resources and needs as they relate to school improvement (p. 191). As will be discussed in the section on Bryk et al.’s (2010) findings, a school’s community plays a large role in the development and success of the essential supports (Bryk et al., 2010, pp. 188-190).

Professional capacity. The third essential support identified by Bryk et al. (2010) is professional capacity or “the human resources subsystem” (p. 54). Professional capacity “was the most extensively measured subsystem,” indicating both its complexity and importance (Bryk et

al., 2010, p. 72). As Sebring et al. (2006) explain, “[p]rofessional capacity depends greatly on the knowledge, skills, and dispositions of the faculty and staff, and their ongoing learning and professional growth” (p. 2). Accordingly, this subsystem is comprised of four elements that are thought to be mutually reinforcing: (1) Quality of human resources, (2) Quality of professional development, (3) Staff’s normative dispositions, and (4) Professional community (Bryk et al., 2010, pp. 54-56; see also: Sebring et al., 2006). The four elements of professional capacity translated into six indicators that stemmed from thirteen measures.

The first element within the professional capacity subsystem, quality of human resources, was measured using a school-level teacher background variable that considered teachers’ “cosmopolitan experience” (that is, their experience teaching outside of the Chicago public school system) and quality of undergraduate institution (Bryk et al., 2010, pp. 72-73; see also: Sebring et al., 2006). While teacher background and experience has been identified as an important factor in student performance (e.g., Darling-Hammond, 1999; Hanushek & Rivkin, 2007; Rothstein, 2010), it is not explicitly discussed in the literature on effective schools and there is no consensus on which aspects of teacher background are determinants of teacher quality (e.g., Coleman, et al. 1966; Goldhaber & Anthony, 2007; Harris & Sass, 2011). Power over hiring and firing of teachers was also considered by Bryk et al. (2010) as an important aspect of quality of human resources. This component was measured using a principal self-report about their power over the hiring and firing of teachers (Bryk et al., 2010), and it relates to the importance of site-based management which is highlighted in the literature on effective schools (e.g., Lee, Byrk & Smith, 1993; Purkey & Smith, 1983; Rosenholtz, 1985; Smith & O’Day, 1991), as well as in the more recent literature on school turnarounds (e.g., Calkins, Guenther, Belfiore, & Lash, 2007; Kutash et al., 2010).

The second element of the professional capacity subsystem, professional development, was measured using teachers’ reports of frequency and quality of professional development. Professional development that is school-wide and designed to meet school-, teacher-, and curriculum-specific needs is highlighted in the effective schools literature as an attribute of effective schools (e.g., Mackenzie, 1983; Newmann & Wehlage, 1995; Purkey & Smith, 1983;

Rosenholtz, 1985). Furthermore, professional development is widely recognized in more recent literature as an essential component of effective school reform (e.g., Darling-Hammond & McLaughlin, 1996; Desimone, Porter, Garet, Yoon, & Birman, 2002; King & Newmann, 2001; Newmann, King, & Youngs, 2000; Sparks & Hirsh, 2000).

Staff's normative dispositions, the third element in the professional capacity subsystem, was operationalized on a teacher survey by items that measured teacher orientation toward innovation and school commitment (Bryk et al., 2010; Bryk et al., 2009). Bryk et al. (2010) explain that these measures "capture critical aspects of teachers' willingness to try out new instructional practices in their classrooms, maintain a "can-do" attitude, and internalize responsibility for improving their school" (p. 72). Considering these indicators, one can see that Bryk et al.'s (2010) concept of staff's normative dispositions captures the importance of behavior and attitude and consensus on norms and goals that is discussed within the context of school culture in the literature on effective schools (e.g., Mackenzie, 1983; Purkey & Smith, 1983; Rosenholtz, 1985).

The final element in this subsystem, professional community, was measured on a teacher survey through questions that asked about peer collaboration, collective responsibility, reflective dialogue, focus on student learning, public classroom practice (for example, did teachers observe one another teaching and provide feedback?), and teacher socialization (Bryk et al., 2009). This element operationalizes critical aspects of effective schools captured in the literature on effective schools such as collaborative planning, collegial relationships, and intellectual sharing (e.g., Lee, Bryk, & Smith, 1993; Mackenzie, 1983; Newmann & Wehlage, 1995; Purkey & Smith, 1983; Rosenholtz, 1985; Smith & O'Day, 1991).

As Bryk et al. (2010) explain, "[a]ll organizations depend on the quality of their people and their ability to work together" (p. 54). The quality of human resources is especially critical in schools as it is teachers who have the most direct control over instruction and consequently the greatest potential to either help or hinder reforms geared at improving student achievement (e.g., Cohen & Ball, 1990; Dutton, Fisk, Koch, Roop, & Wixson, 2002; Elmore, 1995; Payne, 2008; Sparks & Hirsh, 2000; Spillane, 1999; Spillane, Reiser, & Reimer, 2002). Similarly, the ability of

teachers to work together is critical to school reform because teacher collaboration facilitates the mutually reinforcing nature of the elements of professional capacity that in turn facilitates improvement and growth for teachers, students, and schools (e.g., Bryk et al., 2010; Darling-Hammond & McLaughlin, 1996; Giles & Hargreaves, 2006; Newmann, King, & Youngs, 2000; Sebring et al., 2006).

Recent teacher-related interventions geared at improving student achievement include teacher evaluations and merit pay. While such interventions recognize the important role that teachers play in improving student achievement (e.g., Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004), they are highly controversial, particularly because of their use of value-added measures of student achievement as indicators of teacher quality (e.g., Glazerman, Goldhaber, Loeb, Raudenbush, Staiger, & Whitehurst, 2010). Findings from research on the impact of teacher evaluations (e.g., Kimball, White, Milanowski, & Borman, 2004; Slotnik, Smith, Glass, Helms, & Ingwerson, 2004) and various merit pay schemes (e.g., Dee & Wykoff, 2013; Yuan et al., 2013) on student achievement have been mixed. Those critiquing merit pay and the use of teacher evaluations for punitive action, argue that these interventions—by using narrow measures of teacher performance, relying largely, if not solely, on student achievement data—fail to consider the complexity of teachers' work and the impact of school context on teacher performance (e.g., Baker et al., 2010; Berry & Eckert, 2012; Johnson, 2012). Bryk et al.'s (2010) framework suggests that rather than focusing on interventions such as merit pay and teacher evaluation which target only one dimension of professional capacity, we ought to consider interventions that have the potential to impact all elements of professional capacity, such as professional development.

Extensive literature on professional development has identified many attributes of effective professional development that capture *all dimensions* of professional capacity— such as improving teacher quality by increasing content knowledge (e.g., Desimone et al., 2002; Garet, Desimone, Porter, Birman, & Yoon, 2001); creating professional communities through embedding professional development in teachers' daily routines and facilitating teacher collaboration (e.g., Little, 1993; McLaughlin & Zarrow, 2001); and impacting normative dispositions through

facilitating collective sense-making, inquiry, and reflection (e.g. Darling-Hammond & McLaughlin, 1996; Dutro et al., 2002; King & Newmann, 2001). Unfortunately, the effectiveness of these attributes of effective professional development and how they operate to improve student achievement are largely unsubstantiated by empirical research, underscoring the need for more systematic research on the effectiveness of professional development (e.g., Garet et al., 2001). Randomized control trials have tested particular attributes of effective professional development identified by the professional development literature and found professional development to be effective at increasing teachers' knowledge and skills and changing classroom practice (e.g., Desimone et al., 2002; Garet et al., 2001). However, more research is needed to determine which attributes of professional development work under what circumstances, and how they operate to affect student achievement. A more detailed understanding of what quality professional development looks like and how it works to build professional capacity could be used to enhance Bryk et al.'s (2010) measures in this area and shape future reforms that intend to improve professional capacity.

Student-centered learning climate. The fourth essential support in Bryk et al.'s (2010) framework for school improvement is a student-centered learning climate. This support is made up of three components: (1) Order and safety, (2) Teachers' academic press and personalism, and (3) Supportive peer norms (Bryk et al., 2010, p. 60). All three elements of a student-centered learning climate function together to ensure that students can be pressed to achieve higher academic success in a safe and supportive environment.

The first component of a student-centered learning climate, order and safety, is a pre-requisite for the other two components because, as Bryk et al. (2010) explain, "a sense of safety and order is a basic human need" (p. 59). In accordance with the literature on effective schools, Bryk et al. (2010) elucidate that safety and order play a critical role in school improvement because the absence of safety and order—marked by classroom interruptions and disruptions—diminishes time for learning and also negatively impacts both student motivation and classroom engagement (Bryk et al., 2010; see also: Hallinger & Murphy, 1986; Mackenzie, 1983; Purkey &

Smith, 1983; Rowan, et al., 1983). Overall, research on the impact of neighborhood and school safety on academic achievement is lacking (e.g., Milam, Furr-Holden, & Leaf, 2010). Researchers have called for more systematic, theoretically grounded research on school safety so that we can better understand mechanisms for improving safety as well as the various effects of school safety (e.g., Astor, Guerra, & Van Acker, 2010).

Order and safety were assessed by Bryk et al. (2010) using “student reports about their perceived safety in and around school” as well as teacher reports on the number of classroom disruptions, including student misbehavior as well as other interruptions such as announcements, tardy students, and noise in the hallway (p. 74; see also: Bryk et al., 2009). While student reports are commonly used as measures of perceived safety, a recent study by Fan, Williams, and Corkin (2011) found that student characteristics such as behavior problems, gender, and ethnicity significantly impacted students’ perceptions of school climate, suggesting that students’ reports of perceived safety ought to be corroborated by other evidence.

A study by Steinberg, Allensworth, and Johnson (2011) took Bryk et al.’s (2010) work on the essential supports, student-centered learning climate in particular, a step further, considering in greater detail the factors that impact school safety. Interestingly, they found that while order is necessary to create a safe school environment, schools that emphasize strong, positive relationships among and between school leaders, teachers, students, and families, rather than harsh discipline policies are perceived as safer (Steinberg et al., 2011). The researchers explain: “inside the school building, the mutually supportive relationships that students and their parents have with teachers are the most critical elements defining school safety for both students and teachers” (Steinberg et al., 2011, p. 47). This finding on the important role of relationships in building a safe school climate complements Bryk et al.’s (2010) finding that the development and maintenance of a safe and orderly school environment *and* supportive academic norms (even amongst peers) relies on a “strong sense of shared professional responsibility” (Bryk et al., 2010, p. 60).

Once the foundation of order and safety has been established, teacher-student and student-student relationships come into play as critical components of a student-centered learning climate. As Bryk et al. (2010) explain, “both teacher-student and student-student relations directly influence students’ participation in school and willingness to expend major effort on classroom learning” (Bryk et al., 2010, p. 59). In terms of teacher-student relations, Bryk et al. (2010) focus on “teachers’ academic press and personalism” (p. 60). To measure teachers’ academic press, Bryk and colleagues used student survey questions that inquired into the extent to which teachers encourage extra work, expect students to do their best and complete assignments, and emphasize the importance of doing well (Bryk et al., 2009). Academic press is indicative of the standards and expectations that teachers have for students and, in this sense, the measures Bryk et al. (2010) created for academic press speak to the importance of clear goals and high expectations, two critical attributes of effective schools (e.g., Hallinger & Murphy, 1986; Lee, Bryk, & Smith, 1993; Mackenzie, 1983; Newmann & Wehlage, 1995; Purkey & Smith, 1983; Rosenholtz, 1985; Smith & O’Day, 1991). As Bryk et al. (2010) explain, high standards and expectations “typically resul[t] in more homework, extended instructional time, more difficult tests, and more stringent requirements for grade promotion and graduation” (p. 60).

This increased workload and heightened academic requirements make personalism—or, individualized support for students—increasingly important. As Bryk et al. (2010) explain, “a press toward higher academic standards must be coupled with ample personal support so that disadvantaged students have a realistic chance of responding successfully to these expectations” (Bryk et al., 2010, p. 60; see also: Mackenzie, 1983). To measure personalism, Bryk and colleagues used student survey questions that asked about the extent to which students feel their teachers notice if they’re struggling, believe that they can succeed, are respectful and approachable, listen and care about them, and notice and support them in making up for absences (Bryk et al., 2009). These measures align with Reyes, Brackett, Rivers, White, and Salovey’s (2012) finding that “when a classroom climate is characterized by warm, respectful, and emotionally supportive relationships, students perform better academically” (p. 710).

The final element of a student-centered learning climate is “supportive peer norms,” which Bryk et al. (2010) measured using student surveys that asked questions about the extent to which students believed their friends follow school rules, try hard to succeed, and think homework and attending and paying attention in class is important (Bryk et al., 2009, p. 18). Supportive peer norms are important attributes of effective schools as they facilitate school-wide recognition of academic success and a positive school climate (e.g., Hallinger & Murphy, 1986; Mackenzie, 1983; Purkey & Smith, 1983; Smith & O’Day, 1991). Recent literature on peer norms has focused on the prevalence of school bullying and its negative impacts (e.g., Salmivalli, 2010; Swearer, Espelage, Vaillancourt, & Hymel, 2010). Bullying is both a form of violence and a detriment to supportive peer norms and it has been found to negatively impact students’ mental health and ability to learn (e.g., Rothona, Head, Klinebergc, & Stansfelda, 2011; Thapa, Cohen, Guffey, Higgins-D’Alessandro, 2013). Positive school climate has been identified as a preventative measure against bullying, further underscoring the important role that safety and supportive peer norms (critical aspects of a positive school climate) play in supporting student learning and school improvement (e.g., Eliot, Cornell, Gregory, & Fan, 2010; Klein, Cornell, & Konold, 2012).

Instructional guidance. The final essential support outlined in Bryk et al.’s (2010) framework for school improvement is instructional guidance. Instructional guidance is defined as: “Cultivating the school-wide supports concerning curriculum and instruction in order to promote more ambitious academic achievement for every child” (Bryk et al., 2010, p. 46). A school’s instructional guidance system clearly defines academic expectations; organizes curriculum content (meaning, it specifies what students should learn when and in which class); and provides teachers with tools such as instructional materials, assessments, and pedagogical strategies that they can use to improve student learning (e.g., Bryk et al., 2010; Cohen & Ball, 1990; Cohen & Spillane, 1992; Grossman, 2010). While Bryk et al. (2010) believe that teachers ultimately have the power to decide how to organize instruction in their classroom, they also note that decisions about instruction “are structured by the set of available school resources and accountability press (if present)” (Bryk et al., 2010, p. 75). In this sense, instructional guidance is a mechanism for

addressing the gap between policy and practice, a widely acknowledged phenomenon that is often blamed for failed reforms (e.g., Coburn, 2005; Cohen & Ball, 1990; Elmore, 1995; Payne, 2008; Spillane, 1999; Spillane, Reiser, & Reimer, 2002).

Bryk et al. (2010) base their conceptualization of instructional guidance on two key ideas: (1) Curriculum organization (“the “what” of instruction”), and (2) Advancing the academic goals of instruction (“the “how” of the instructional guidance system”) (pp. 52-53). To measure the “what” of instruction, Bryk et al. (2010) created an indicator of curricular alignment. This indicator focused only on mathematics instruction and considered how much time teachers at each grade-level spent on each math sub-topic in the curriculum over the course of the academic year. This information was aggregated across grade-levels in order to “assess the pacing with which new topics were introduced into the curriculum at that school” (Bryk et al., 2010, p. 74). In order to create the curricular alignment indicator, the pacing of math content in practice was compared to the pacing of mathematics content as it *should have occurred* as determined by a content analysis of CPS’s standardized mathematics tests (Bryk et al., 2010, p. 75).

The “how” of the instructional guidance system was measured on a teacher survey that asked teachers to report on their “instructional emphasis and corresponding pedagogical methods” for reading and math (Bryk et al., 2010, p. 75). Noting that the knowledge economy demands that schools teach students mastery of higher-order tasks in addition to basic skills, in creating this indicator, researchers were particularly interested in emphasis placed on basic skills and didactic teaching versus that placed on applied skills and experiential learning (Bryk et al., 2010; Bryk et al., 2009). Bryk et al.’s (2010) construct of instructional guidance highlights the value of balancing basic and complex skills within a curriculum, an attribute of effective schools discussed by Purkey & Smith (1983) and other researchers on effective schools (e.g., Hallinger & Murphy, 1986; Smith & O’Day, 1991).

Bryk et al. (2010) explain that instruction, and therefore learning, can be helped or hindered depending on the quality of the instructional guidance system (Bryk et al., 2010). As they elucidate: “[g]aps in the curriculum, poor pacing of instruction and idiosyncratic expectations

for student performance within and across grade levels, and incoherence between the regular and the supplemental instructional program can all weaken students' overall learning" (p. 51). In essence, to improve student achievement, an instructional guidance system should be well thought out and strongly supported in terms of resources, coordinated across grades and classrooms, and additionally carefully balance basic and high-order skills (e.g., Bryk et al., 2010; Cohen, Raudenbush, Ball, 2003; Sebring et al., 2006). The creation of such an instructional guidance system and generation of corresponding improvements in student achievement, require that the "other four supports are focused on supporting ambitious instruction" (Sebring et al., 2006, p. 2). Ways in which the other essential supports can facilitate development of a strong instructional guidance system include setting clear goals and high expectations (school leadership), providing opportunities for teachers to learn pedagogical skills through professional development and supporting development of strong professional communities (professional capacity), and ensuring a positive school culture (student-centered learning climate) (e.g., Bryk et al., 2010; Cohen, 1995; Cohen & Ball, 1990; Cohen & Ball, 1999; Cohen & Spillane, 1992).

Relational trust. Beyond the five essential supports for school improvement, Bryk et al. (2010) identified an additional component as critical to improving schools—relational trust. According to Bryk et al. (2010), "[s]ome of the most powerful relationships found in [their] data are associated with relational trust and how it operates as both a lubricant for organizational change and a moral resource for sustaining the hard work of local school improvement" (p. 207). In fact, they argue that without relational trust, "it is nearly impossible for schools to develop and sustain strength in the essential supports" (Bryk et al., 2010, p. 207). Relational trust is the result of expectations or beliefs about people's roles and behaviors within an organization being regularly validated by people's actions and interactions (e.g., Bryk & Schneider, 2002; Louis, 2007; Rousseau, Sitkin, Burt, & Camerer, 1998; Zaheer, McEvily, and Perrone, 1998). In essence, as Bryk et al. (2010) explain, "relational trust is forged in day-to-day social exchanges" (p. 139).

To create an indicator of relational trust, Bryk et al. (2010) considered teacher-teacher trust, teacher-principal trust, and teacher-parent trust. They measured these subsets of trust

using items from a teacher survey that asked about beliefs and observed behavior within the school as they pertained to the four elements of relational trust (Bryk & Schneider, 2002). These elements of relational trust are consistent with the attributes of trust outlined in research on schools (e.g., Hoy & Tschannen-Moran, 1999; Lewis, 2007; Tschannen-Moran & Hoy, 1998) as well as research on trust as it pertains to organizational management more generally (e.g., Mishra, Kramer, & Tyler, 1996; Rousseau et al., 1998; Zaheer et al., 1998). The four elements of trust operationalized by Bryk et al. (2010) are: (1) respect, (2) personal regard, (3) integrity, and (4) competence.

Respect is defined as “recognition of the important role each person plays in a child’s education and the mutual dependencies that exist among various parties involved in this activity” (Bryk & Schneider, 2002, p. 23). Respect can be seen in the extent to which school stakeholders cooperate and actively listen to one another. Personal regard captures the extent to which “individuals perceive that others care about them and are willing to extend themselves beyond what their role might formally require in any given situation” (Bryk & Schneider, 2002, p. 25). In other words, personal regard involves one going above and beyond the call of duty—for instance, the requirements of a collective bargaining agreement or job contract—in order to improve his or her school and work environment and help others. Personal regard may look like putting in extra hours to improve school programming, offering emotional support to colleagues, and reaching out to struggling students on a more personal level. The third element, integrity, is one’s perception of the consistency between what various actors say and what they do— it is essentially a measure of whether people act in alignment with their beliefs and are true to their word (Bryk & Schneider, 2002, p. 25). Lastly, competence is a measure of one’s perception of others’ ability to do their job and meet their specific responsibilities.

As the findings from the Chicago study show, the presence or absence of relational trust “has important consequences for the functioning of the school and its capacity to engage fundamental change” (Bryk & Schneider, 2002, p. 22). While the effective schools literature does not explicitly discuss the value of trust, the literature does align with Bryk et al.’s (2010)

description of relational trust as it emphasizes the important role school culture and relationships (principal-teacher, teacher-student, and teacher-parent) play in facilitating academic achievement (e.g., Hallinger & Murphy, 1986; Purkey & Smith, 1983; Rosenholtz, 1985).

Findings and Implications of Research on the Essential Supports

Bryk et al.'s (2010) longitudinal study of school decentralization in the Chicago Public Schools (CPS) used data from several hundred elementary schools "to develop, test, and validate a framework of essential supports for school improvement" (pp. 23-24). In reporting their findings, Bryk et al. (2010) explain: "We found that schools having strong indicator reports were up to ten times more likely to improve students' reading and mathematics learning than were contexts where three or more of these indicators were weak" (p. 198). Findings also showed that each essential support had a unique relationship to improving student learning, and additionally contributed to improving student learning through relationships with the other essential supports (Bryk et al., 2010; Sebring et al., 2006). Schools that were strong in all of the essential supports saw the greatest improvements in achievement whereas schools that had a low score on one or more indicator had a less than ten percent probability of improving (Bryk et al., 2010). As Sebring et al. (2006) explained in the first report on the essential supports, "weakness in any organizational element can undermine strengths in other areas" (p. 4).

While schools with strong essential supports showed higher probabilities of improvement and lower probabilities of stagnation no matter what the school's neighborhood context was, the study did find that school context played an important role in mediating the impact of the essential supports (Bryk et al., 2010; Sebring et al., 2006). Specifically, researchers found that "positive school community conditions facilitate the development of the supports, while the presence of crime and a high density of students living under extraordinary circumstances inhibit them" (Sebring et al., 2006, p. 3). In other words, while schools with strong essential supports could be found in all communities, they were more likely to be found in communities with high social capital, a low crime rate, and a low density of abused or neglected students (Sebring et al., 2006; Bryk et al., 2010). Furthermore, results showed that schools located in communities that had

“high levels of social capital and low densities of abused or neglected students could get by with average levels of essential supports” (Sebring et al., 2006, p. 43; see also: Bryk et al., 2010). On the contrary, schools that served high densities of abused or neglected students and were located in communities with little social capital needed exceptionally strong essential supports in order to improve (Bryk et al., 2010; Sebring et al., 2006). As Bryk et al. (2010) explain, this conundrum is emblematic of a harsh reality in which schools located in environments that facilitate the development of essential supports can improve even with modest levels of essential supports, while the schools that need the greatest presence of essential supports in order to improve are located in environments where the supports are harder to develop (Sebring et al., 2006; Bryk et al., 2010). This finding is consistent with Hallinger & Murphy’s (1986) finding that for schools in high-socioeconomic status (SES) communities (that were already higher performing as it was), “[l]ess radical adjustments were necessary in order to bring about marginal improvement” (p. 342).

Bryk et al. (2010) conclude that in order to improve student achievement, districts need “a sustained, integrated, and coherent focus on building their capacity to support school-level improvement across all five domains” (p. 198). The evidence in Chicago demonstrates that “a school’s capacity to improve derives from its *overall* organizational strength across all of the essential supports” (Sebring et al., 2006, p. 25). While the research did not find “stable patterns of gross inconsistency across the five essential supports, where schools are very strong in some supports and very weak in others,” the researchers did note that there was interdependency among the supports and that “[t]he persistence of a clear weakness in any essential organizational element will eventually undermine whatever strengths might have been assembled elsewhere” (Sebring et al., 2006, p. 24). This finding is aligned with Purkey & Smith’s (1983) review of the effective schools literature in which they conclude the characteristics of effective schools are interdependent. In considering relational trust alongside the essential supports, Bryk et al. (2010) find: “Absent such trust, schools find it nearly impossible to strengthen parent-community ties, build professional capacity, and enable a student-centered learning climate. The

reverse is also true: Low trust is linked to weaker developments across these organizational supports” (p. 27; see also: Bryk & Schneider, 2002). Practically speaking, relational trust facilitates problem solving, efficiency, and commitment to both one’s school and to organizational change (e.g., Bryk et al. 2010, Bryk & Schneider, 2002). In essence, relational trust creates an environment that is conducive to both the presence and strengthening of the essential supports.

In discussing these findings, it is again important to note that the design of Bryk et al.’s (2010) study only allows for correlational, not causal claims. Regardless of whether one believes this correlational evidence is able to substantiate claims about the “essential supports for school improvement,” Bryk et al.’s (2010) framework of essential supports provides the research on effective schools with a much-needed conceptual framework and additionally creates measures that can be used to generate systematic research in this field.

Like the literature on effective schools in general, Bryk et al.’s study does not look at *how* the essential supports were developed within schools. Rather, Bryk et al. (2010) consider whether or not the essential supports were present, how they interacted with one another and school context, and the relationship between the strengths and weaknesses of the essential supports and improvement and stagnation in learning gains (see also: Sebring et al., 2006). Bryk et al. (2010) do take the effective schools literature a step further by operationalizing measures that hint at how to develop the essential supports. For example, the descriptions of sub-dimensions and survey items could be used to outline actionable steps for developing the essential supports. Nevertheless, their study does not explicitly address how each of the schools in their sample went about the process of school reform.

Research has shown that understanding the implementation of reforms is critical to understanding reforms’ strengths and weaknesses, and successes and failures (e.g., Borman, Hewes, Overman, & Brown, 2003; Datnow & Stringfield, 2000; Desimone, 2002; McLaughlin, 1987; Porter, 1994; Supovitz & May, 2004). Therefore, having established the important role of each of the essential supports and relational trust in facilitating school improvement, I will now

transition from a discussion of *what* is necessary to generate school improvement to a discussion about *how* policymakers can facilitate school improvement.

Comprehensive School Reforms and Policy Attribute Theory

Comprehensive School Reform (CSR) designs have their roots in the literature on effective schools (e.g., Borman et al., 2003; Desimone, 2002; Vernez, Karam, Mariano, & DeMartini, 2006). As mentioned in the previous section, while the literature on effective schools identifies common attributes of effective schools, it does not prescribe activities or methods that facilitate the development of these attributes in schools (Desimone, 2002). CSR models take the literature on effective schools a step further, “providing design[s] by which effective schools can be created” (Desimone, 2002, p. 434; Borman et al., 2003; Good, Burros, & McCaslin, 2005). Consequently, as one might imagine, there is significant overlap in the bodies of literature on effective schools and CSR. In analyzing the literature on CSR as compared to effective schools, one is essentially looking at the same attributes of schools, but analyzing them through a different lens. Parallel to how the framework of essential supports was used to describe what the characteristics of effective schools are and how they relate to student achievement; in this section I will analyze the literature on comprehensive school reform (CSR) using policy attribute theory. Policy attribute theory captures *how* reforms strive to create (or strengthen) the key components of effective schools towards the goal of improving student achievement. This framework serves as the final piece of a conceptual framework for my study of school turnarounds in Philadelphia which investigates how the effectiveness of school turnaround models and their key design components (as measured by academic achievement and the essential supports, respectively) relate to how the models are implemented (as measured by policy attribute theory).

Policy attribute theory is a framework that links school policies with teachers' content decisions in an effort to explore the mechanisms through which policies gain influence over practice (Porter, 1989; see also: Porter, 1994; Porter et al., 1986). In *How Can Comprehensive School Reform Models Be Successfully Implemented?*, Laura Desimone (2002) adapts and applies the theory of policy attributes, developed by Andrew Porter and his colleagues, to her

research on the successful implementation of CSR models. Policy attribute theory “relates five components to successful policy implementation: specificity, consistency, authority, power, and stability” (Desimone, 2002, p. 438; see also: Porter, 1989, p. 347; see also: Porter, 1994; Porter et al., 1986). Critical to Desimone’s (2002) adaptation of the theory is her focus on district, school, and teacher *perceptions* of the policy attributes rather than their true levels, which Porter and colleagues’ argue are fixed (p. 439). Desimone (2002) focuses on perceptions of the levels of policy attributes because she believes that it is the perception of the attributes rather than their true values that influences implementation of reforms. Granted, perceptions would be shaped, in part, by actual levels of the attributes. Specifically, Desimone (2002) explains: “While acknowledging that some true set of policy attributes exists, I suggest here that it is district, principal, and teacher knowledge and interpretation of the attributes that directly influence practice” (Desimone, 2002, p. 440). This statement is consistent with the broader literature on reform implementation and the gap between policy and practice (e.g., Cohen, 1990; Cohen & Ball, 1990; McLaughlin, 1987). Before moving on to a discussion about how the five policy attributes relate to the five essential supports and what this relationship means for school improvement, I will provide a brief overview of each of the five policy attributes, linking them to the larger literature on CSR.

Specificity. Desimone (2002) defines specificity (also referred to as prescriptiveness) as “how extensive and detailed a policy is” (p. 438; see also: Porter, 1989; Porter 1994; Porter et al. 1988). Specificity facilitates the implementation of a reform by making explicit what teachers, principals, and other school staff need to do in order to implement policy and make the prescribed changes necessary to improve student achievement (Desimone, 2002; Porter et al., 1986; Porter, 1989; Porter, 1994). Specificity makes a policy more clear, and by leaving less room for interpretation it increases the chances that the policy will be implemented with fidelity (Desimone, 2002). Examples of ways to make a policy more explicit include setting clear goals as well as providing teachers with curriculum frameworks and guidelines, pacing suggestions, instructional materials, and professional development to educate them about the policy (e.g., Berends, Bodilly,

& Kirby, 2002; Datnow & Stringfield, 2000; Desimone 2002; Porter et al., 1986). According to

Desimone (2002), there are three main factors in specificity:

- (a) locus of development. Or, in other words, whether the model is designed by the school or is externally developed by a design team;
- (b) level and type of professional development provided. For example, using curriculum-based professional development that provides lesson plans, as opposed to philosophically-based professional development that provides only general guidelines; and
- (c) information and monitoring provided by design teams and districts. (p. 440)

The locus of development relates to specificity, because externally developed designs tend to be more specific in nature, thus allowing for faster and easier implementation as compared to locally developed designs which tend to be lacking in specificity (Desimone, 2002). The second factor, professional development, is a key mechanism for enhancing a design's specificity (Desimone, 2002). Generally speaking, professional development that is tailored to the CSR model and unique needs of the school implementing the model helps to ensure proper implementation of the CSR model (Desimone, 2002). Professional development will vary by CSR design (in terms of time, content, and activities). For instance, a design that relies on a heavily scripted curriculum may require less professional development than a design that requires extensive teacher input, collaboration, and planning. Similarly, a design that involves a very specific type of instruction may require much more didactic professional development than a design that emphasizes local adaptation and teacher sensemaking. Lastly, information increases the specificity of a design by providing implementers with instructions and materials that detail how to implement the design, and monitoring additionally increases the specificity of a design by using evaluation and feedback mechanisms to improve implementation fidelity (Desimone, 2002; see also: Berends et al., 2002; Cohen, 1990; Cohen & Ball, 1990; Lee, Byrk, & Smith, 1993; McLaughlin, 1987; Purkey & Smith, 1983).

Consistency. According to Porter (1994): "Consistency reflects the degree to which different education policies all call for the same education practice" (p. 438; see also: Desimone, 2002; Porter et al., 1986). In essence, consistency is the extent to which a reform is aligned with current school, district, state, and federal reforms (Desimone, 2002). Strong school leadership as

well as alignment of CSR goals and design requirements, content standards, and accountability and assessment systems help to insure consistency (e.g., Berends et al., 2002; Datnow & Stringfield, 2000). Consistency can be furthered by communication amongst the various actors in education systems and additionally ensured by strong and unwavering support of CSR by the district (e.g., Berends et al., 2002; Datnow & Stringfield, 2000; Desimone 2002). The design and use of CSR models that account for school context and current operations (e.g., Cohen & Ball, 1990; Cohen & Spillane, 1992) and are tied to the goals and vision of the broader educational system (e.g., Berends, 2000; Datnow, 2005; Desimone, 2002) can also facilitate consistency.

As Desimone (2002) explains, “when reforms are consistent with on-going school organization, curriculum, and instruction, the reform more easily fits into the fabric of the school and better implementation results” (p. 460). Reforms also experience better implementation when the school-level reforms are consistent with other local, state, and federal reforms (Desimone, 2002). It is perhaps easiest to envision the importance of consistency in implementing policies if one considers attempting to implement a policy in a context marred by inconsistencies. Inconsistencies can occur between schools and districts or states, or within a school (for instance, if a school adopts a CSR model that is not a good match with its current goals, organization, or reform efforts) (Desimone, 2002). If the policy one intends to implement is at odds with other school policies, district policies, state policies, federal policies, or any combination of these policies, then those implementing the policy (especially teachers) will be forced to deal with competing demands (Desimone, 2002). As teachers have been found to adopt new reforms on top of old reforms (e.g., Porter, 1989) or cobble diverse reform efforts together (e.g., Cohen & Ball, 1990) more readily than discarding old practices, consistency of a CSR model with a school's current instructional model and goals is particularly important in ensuring strong implementation of the CSR model (e.g., Desimone, 2002; Porter, 1989) and preventing teacher overload, which negatively impacts implementation (e.g., Berends et al., 2002). Clarity about the direction and strategy for reform facilitates the development of attributes of effective schools such

as clear, shared goals and high expectations (e.g., Purkey & Smith, 1983); clear and purposeful curriculum articulation (e.g., Hallinger & Murphy, 1986); and professional development that meets the needs of the school (e.g., Mackenzie, 1983; Rosenholtz, 1985).

Authority versus power. Strong implementation of a comprehensive school reform requires the proper balance of power and authority (Desimone, 2002). In her discussion of policy attribute theory, Desimone (2002) highlights the “contrast between using power and authority in two main areas: (1) choosing a comprehensive school reform design, and (2) supporting the reform” (Desimone, 2002, p. 453). Desimone (2002) explains that power operates via force (such as rewards and sanctions), whereas authority operates through persuasion (see also: Porter, 1989). In thinking about both choosing a comprehensive school reform design and supporting the reform, power could be used to mandate that a school adopts and supports a particular model, or to attach incentives to the adoption and implementation of a specific reform model (e.g., Desimone, 2002; Porter, 1989; Porter, 1994; Porter et al., 1986). Alternatively, authority would emphasize the importance of a critical aspect of effective reform and policy implementation: stakeholder buy-in (e.g., Datnow, 2000; Datnow & Stringfield, 2000; Desimone, 2002; Porter, 1989).

As opposed to power, which relies narrowly on mandates, rewards, and sanctions, there are many ways through which a policy can establish authority (Desimone, 2002). For instance, policies can “gain authority through becoming law, through their consistency with social norms, through knowledge or support from experts, or through promotion by charismatic leaders” (Desimone, 2002, p. 439; see also: Porter, 1994; Porter et al., 1986). Correspondingly, the types of authority discussed by Desimone (2002) as important for successful CSR implementation include institutional authority, individual authority, and normative authority (p. 446). These three different types of authority not only interact with one another, but are also interdependent in that institutional authority lays the foundation for individual authority which in turn facilitates normative authority.

Institutional authority “includes district leadership, resource support, and parent and community support” (Desimone, 2002, p. 446). As Desimone (2002) explains, district leadership can provide authority to a reform through the priorities it sets (e.g., McLaughlin, 1987), the professional development it provides (e.g., Coburn & Stein, 2006), and the curriculum guidelines it develops (e.g., Elmore, 1993; Spillane, 1996). One particularly important component of institutional authority is a district’s allocation of resources—both time and money. It is through allocation of resources that the district sends a clear message to teachers and principals about whether or not the district supports a reform and is making it a priority to provide schools with the resources necessary to successfully implement it (e.g., Berends, et al., 2002; Datnow & Stringfield, 2000; Desimone, 2002; Fullan & Miles, 1992). In addition to district support, community support plays an important role in establishing a reform’s authority (Desimone, 2002). As Desimone (2002) explains, “[w]hen families are aware of and endorse a school’s reform efforts, this facilitates school transition, and helps to increase student and teacher motivation” (p. 462; see also Berends et al., 2002).

Individual authority is “defined as principal leadership” (Desimone, 2002, p. 446). A policy facilitates individual authority by providing the principal with site-based autonomy. With site-based autonomy, a principal has control over activities such as hiring and firing, management of resources, and choice of curriculum (Desimone, 2002). Site-based autonomy has been identified in the CSR literature as critical to effective implementation (e.g., Berends, et al., 2002; Smith & O’Day, 1991). Once individual authority is established, a principal is able to “increase the authority of CSR efforts through teachers’ perceptions of them as experts or through charisma” (Desimone, 2002, p. 448). While individual authority may be restricted by institutional authority (for instance, if the district does not provide a principal with adequate resources or substantial control over his/her school operations), in essence, much like Bryk et al. (2010) found, school leadership is the driver of change. The principal sets the tone for adoption and support of a CSR model, and the better he or she is at explaining the reform and its necessity (e.g., communicating clear and consistent goals); engaging stakeholders with the selection and implementation of

reform (e.g., facilitating teacher buy-in); organizing the school and its operations to support its implementation (e.g., allocating adequate resources including time and money); providing strong professional development; and creating opportunities for teachers to receive feedback on their practice, the stronger the implementation of the reform will be (Berends et al., 2002; Desimone, 2002; Hallinger & Murphy, 1986; Lee, Bryk, & Smith, 1993; Mackenzie, 1983; Newmann & Wehlage, 1995; Purkey & Smith, 1983; Rosenholtz, 1985; Rowan, et al., 1983; Smith & O'Day, 1991).

The particular dimension of authority that is recognized as playing the greatest role in implementation of school reforms (as compared to other types of authority) is “normative authority, which includes teacher participation in decision making, teacher buy-in, participation in networks and collaborative activities, and norms related to race, ethnicity, and income” (Desimone, 2002, p. 446; see also: Porter, 1994; Porter et al., 1986). Districts and principals can support normative authority in a number of ways. By adopting high standards for all students, districts and principals can challenge negative ideological norms of expectations for students based on characteristics such as race and socio-economic status. Likewise, in adopting high standards for all students, districts and principals can reinforce positive ideological norms related to race, ethnicity, and income. These positive norms promote a growth-mindset and emphasize a widely agreed upon attribute of effective schools: setting a goal of high-achievement for all students (e.g., Hallinger & Murphy, 1986; Lee, Bryk, & Smith, 1993; Mackenzie, 1983; Purkey & Smith, 1983; Rosenholtz, 1985).

Another way to increase normative authority is by creating opportunities for teacher participation in decision-making (Desimone, 2002). This facilitates teachers' ownership of a reform, a critical component of successful CSR implementation (e.g., Berends, et al., 2002; Datnow, 2000; Datnow & Stringfield, 2000; Desimone, 2002; McLaughlin, 1987; Mirel, 1994; Spillane et al., 2002). As Desimone (2002) explains, “teacher interactions give a policy authority both through becoming part of the norms of communication and through support by teacher expertise” (p. 447). Furthermore, teachers who are active participants in the CSR decision-

making process and school restructuring implement CSRs more effectively and help to “ensure that the designs are tailored to the needs of their students” (Desimone, 2002, p. 461). Genuine buy-in is important because it indicates teachers’ support of the reform and their belief that pursuing the reform is a worthwhile endeavor (Desimone, 2002). Teacher participation in decision-making and genuine buy-in are critical components of effective CSR implementation (e.g., Coburn & Stein, 2006; Datnow, 2005; Datnow & Stringfield, 2000) and also attributes of effective schools (e.g., Purkey & Smith, 1983; Rosenholtz, 1985).

While policy attribute theory purports that policies tend to operate more through authority than power (e.g., Porter et al., 1986), Desimone (2002) does note that there is a need to evaluate the relationship between power and authority further. To these ends, it is useful to consider a point made by Milbrey McLaughlin (1987) in *Learning from Experience: Lessons from Policy Implementation*. In this analysis of implementation literature, McLaughlin (1987) suggests that effective implementation requires one to balance pressure with support, stating: “Pressure alone may be sufficient when policy implementation requires no additional resources or normative change. But pressure alone cannot effect those changes in attitudes, beliefs, and routine practices typically assumed by reform policies” (p. 173). McLaughlin (1987) elucidates, explaining, “even an army of auditors would be unable to force compliance with the *spirit* of the law—which is what matters in the long run” (p. 173). As is the case with pressure, support alone is also insufficient for policy implementation due to the competing priorities and demands that implementers face (McLaughlin, 1987). Ultimately, McLaughlin (1987) suggests that “[p]ressure is required in most settings to focus attention on a reform objective; support is needed to enable implementation” (p. 173). Desimone’s analysis of power and authority aligns with this idea. As Desimone (2002) explains, power (pressure) is effective in terms of producing effects in the short-run but incapable of sustaining these effects once the rewards and sanctions stop (see also: Porter, 1994). Conversely, while authority (support) may take longer to get a reform implemented, it also helps to ensure stability of the reform in the long run (Desimone, 2002). As Desimone

(2002) explained: “it is only with genuine buy-in that whole-school implementation and lasting implementation can result” (Desimone, 2002, p. 462).

Stability. The final policy attribute, stability, “represents the extent to which people, circumstances, and policies remain constant over time” (Desimone, 2002, p. 439). Stability captures the degree to which a CSR model is institutionalized and therefore able to persist and flourish over time. Desimone (2002) identifies three major factors that influence stability:

- (a) mobility of students, teachers, principals, and district leadership;
- (b) stability of the policy environment; and
- (c) pace of reform. (p. 454)

The mobility of students, teachers, principals, and district leadership impacts stability because as Desimone explains:

If teachers leave, it is difficult to ensure that new teachers will adhere to the model; if students leave, it becomes more challenging for teachers to implement the model; and if administrators leave, their replacements may not be supportive of the reform. (Desimone, 2002, p. 463)

The stability of the policy environment is critical because volatile reform environments send the message that reforms are temporary, thereby weakening commitment to reform efforts (Desimone, 2002). The literature on effective schools recognizes the importance of stability, identifying high mobility rates as detrimental to creating effective schools and commitment to reform efforts as vital to creating effective schools (e.g., Berends, et al., 2002; Mackenzie, 1983; Purkey & Smith, 1983; Rosenholtz, 1985; Smith & O’Day, 1991). Despite widespread recognition of the importance of stability, the funding structure of many school reform initiatives directly undermines stability by only funding reforms for a short period of time (Desimone, 2002).

Pace of reform is a critical aspect of stability because “[s]chool reform is a slow process” (Desimone, 2002, p. 455; see also: Berends, 2000; Cohen & Ball, 1990). The slow pace of reform leaves CSR models more susceptible to detrimental effects due to instability in the district—including not only student, teacher, principal, and district leadership mobility but also shifting priorities in policies at the district, state, or national level (Desimone, 2002). The slow pace of reforms mixed with a volatile policy environment focused on policies that create quick wins (e.g.,

Calkins et al., 2007; Duke & Jacobson, 2011; WWC, 2008) additionally hinders researchers' abilities to measure implementation quality and the impacts of reforms on teachers, students, and parents (Desimone, 2002).

While stability plays a critical role in facilitating the successful implementation of policies, unfortunately, it is the policy attribute that is most difficult to manipulate (Desimone, 2002). Consequently, the onus is on the designers of reforms to create CSR models that are built to withstand volatility. One way to accomplish this is to incorporate the idea of a school as a learning organization into a reform model through the inclusion of activities such as high-quality professional development and protected time and space for professional learning communities. In *A National Plan for Improving Professional Development*, Sparks & Hirsh (2000) propose a "learning schools" model, arguing that "[b]ecause teachers in learning schools continue to learn and expand their knowledge of both content and teaching strategies, they are better able to adapt to growing challenges and changes in students and to higher standards" (p. 13). When professional development is long-term and embedded within a school's daily routine, experiential, inquiry-based, reflective, collaborative, and geared at storing knowledge and networking outside of the school, it gives schools the resources they need to make sense of new reforms, adapt practices to meet the changing needs of students (or policies), and innovate either on current practices or by adopting and altering new practices. This, in turn, builds school capacity—"the collective power of the full staff to improve student achievement school wide"—and gives schools the tools to survive and adapt to a tumultuous and seemingly ever-changing policy environment (Newmann, King, & Youngs, 2000, p. 261).

The Implications of Research on Policy Attribute Theory & Implementation

Just as each of the essential supports is related to student achievement, each of the policy attributes is related to the quality and sustainability of CSR implementation (Desimone, 2002). Desimone's (2002) synthesis of the CSR implementation literature using policy attribute theory provides evidence that each policy attribute makes a particular contribution to implementation: "specificity is related to implementation fidelity, power is related to immediate

effects, and authority, consistency, and stability seem to be the driving forces of long-lasting change” (p. 470). Specificity is related to implementation fidelity because “more detailed and specific guidelines” provide principals and teachers with the knowledge and tools they need to successfully implement the reform (Desimone, 2002, pp. 464-465). Consistency influences both “depth of implementation” as well as lasting change as it protects the reform policy from competing demands, allowing teachers to spend significant time on implementing the CSR model and creating an environment that encourages dedication of time and other resources to the reform at hand (Desimone, 2002). Power is related to immediate effects of a reform as it can provide the funding necessary to jumpstart reforms and mandate quick compliance with the law of reform (Desimone, 2002). An example of power would be the school restructuring required under the No Child Left Behind Act. Authority contributes to long-lasting change through “genuine teacher buy-in, collaborative planning, and shared decision making,” all of which give implementers ownership over the reform (Desimone, 2002, p. 464). Furthermore, authority in the form of district and principal leadership can be used to “integrat[e] the reform into the daily lives of teachers” (Desimone, 2002, p. 264). Like stability, these manifestations of authority institutionalize CSRs, making them “more resilient to weaknesses in other attributes” (Desimone, 2002, p. 465). As Desimone (2002) explains:

While some of the specificity and consistency and power might disappear; for example, professional development might be discontinued, other reforms might be introduced, and incentives might be taken away. If the reform has become part of the teachers’ way of thinking, it is more likely to remain. (p. 465)

In addition to impacting various aspects of implementation, the five policy attributes are also found to interact with one another (Desimone, 2002). Just as Bryk et al.’s (2010) framework of essential supports for school improvement revealed the mutually reinforcing nature of the five essential supports, Desimone’s (2002) analysis of CSR literature found the five policy attributes to be interdependent. While lack of consistency can limit specificity and stability has the potential to undermine all of the other policy attributes, the most apparent interdependencies in policy attribute theory are those between authority and the four other attributes. The relationship between specificity and authority is complicated. Desimone (2002) warns that while increasing

specificity will facilitate implementation fidelity, there are trade-offs that are important to keep in mind. In particular, Desimone (2002) explains it is important to balance specificity “with concerns about teacher professionalism,” which could be enhanced through teacher buy-in and ownership over a reform (p. 459). While it is often assumed that specificity hinders authority, Porter (1989) points out that reforms can be prescriptive yet still engage teachers in their development, thereby protecting the reform’s authority. In fact, specificity—through clear goals, aligned professional development, and feedback mechanisms—“reflects institutional backing of the reform,” which actually increases authority (Desimone, 2002, p. 465). Consistency impacts authority because a lack of alignment among school, district, state, and federal policies hinders teacher commitment and buy-in, thus compromising authority. Stability impacts authority because as a policy persists over time, “teachers will consider it to be institutionalized,” and institutionalization is emblematic of both institutional and normative authority (Desimone, 2002, p. 466). Finally, a reform’s authority may be offset by power should a reform bypass generating buy-in and support for the reform, choosing instead to rely solely on rewards and sanctions (Desimone, 2002).

As Desimone (2002) points out, “while authority may wield the strongest influence of all five of the attributes, it also may be the most difficult to achieve” (Desimone, 2002, p. 462). The perceived difficulty in bolstering authority stems from authority’s “reli[ance] on personal skills and ideologies and complex interpersonal interactions” (Desimone, 2002, p. 462). In this sense, there are clear parallels between authority and the concept of “relational trust,” which was identified by Bryk et al. (2010) as a critical component for developing the essential supports. Authority can be difficult to achieve because it largely depends on relationship building, which can require larger investments of time and effort than the typically more straightforward rewards and sanctions. The perceived investment of time and effort required to get stakeholders to buy into and support a reform model, creates the potential for CSR models to unnecessarily force a trade-off between authority and power and/or authority and specificity, in an effort to speed up implementation (Desimone, 2002). While the critical role of authority is highlighted in literature on implementation (e.g., Cohen & Ball, 1990; Datnow, 2005; McLaughlin, 1987; Spillane et al., 2002), certain reform

models use tight management, prescription, rules, and regulation (in other words, power and specificity) to offset the need for authority. Reformers looking to quickly cut to the chase may opt to bypass activities necessary to garner authority (Desimone, 2002). However, to do so would perhaps be a mistake as despite the significance investment required to generate authority up front, evidence suggests that using authority rather than power to implement a reform is beneficial in terms of creating lasting change. As Desimone (2002) explains:

[P]olicies that gain influence through being authoritative are persuasive to teachers, principals, students, and other stakeholders and therefore are more likely to become institutionalized than policies that gain their influence through power, which lasts only as long as the rewards and incentives last. (p. 439)

While policy attribute theory as applied to the literature on CSR implementation holds that “the more specific, consistent, authoritative, powerful, and stable a policy is, the stronger its implementation will be,” by implying that high levels of all policy attributes are best for implementation, this finding overlooks the nuances of the theory (Desimone, 2002, p. 433; see also: Porter et al., 1986). In recognizing the interdependencies of the policy attributes, Desimone’s (2002) interpretation of policy attribute theory suggests that policies and reform models may have important variations in their levels of the five policy attributes (p. 433; see also: Porter et al., 1986). In fact, Desimone’s (2002) application of policy attribute theory to the implementation of CSRs not only lays the foundation for, but also advocates for, future research that investigates how levels of various policy attributes are related to one another, to implementation quality, to school context, and to reform outcomes (Desimone, 2002).

What policy attribute theory does for the literature on CSR implementation is what Bryk and colleagues’ framework of essential supports does for the literature on effective schools—it provides an analytical framework that can be used to generate theory-driven, systematic research on school reform. Taken together, these two comprehensive analytical frameworks—one that focuses on key dimensions of effective schools and one that highlights the attributes required for strong implementation of policies and reforms—create a powerful integrative framework that can be used to improve not only research on school turnaround, but also the effectiveness of school improvement models. In the section that follows, I will present the conceptual framework used in

my study of school turnaround, the latest brand of comprehensive school reform. This conceptual framework capitalizes on the unique strengths of Desimone's (2002) adaptation of Porter and colleagues' policy attribute theory and Bryk and colleagues' framework of essential supports for school improvement.

CHAPTER 3: CONCEPTUAL FRAMEWORK

A review of the literature on effective schools and comprehensive school reform (CSR) makes clear that there is great value in using Bryk and colleagues' framework of essential supports in studying school effectiveness and Porter and colleagues' policy attribute theory in evaluating the implementation of CSR models. Taken together, these analytical frameworks are even more powerful as they serve as the foundation of an integrative framework for school improvement that hypothesizes relationships among essential supports, policy attributes, and school improvement (as measured by academic achievement), and exploits these relationships to identify levers for creating successful school improvement efforts.

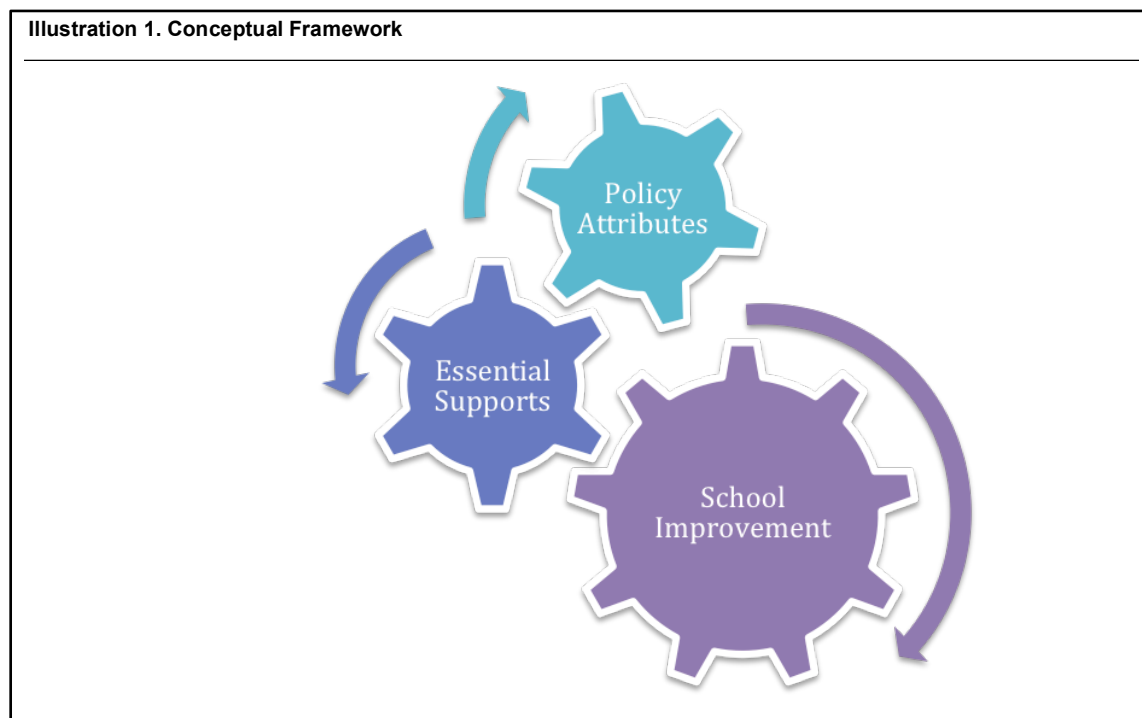
The conceptual framework I propose for studying school turnaround argues that in order to assess success in schools, we ought to consider the effectiveness of a school improvement model within the context of not only key components of its reform strategy (i.e., the essential supports), but also the mechanisms it uses for implementing its strategy (i.e., the levels of policy attributes). In essence, I argue that there are three elements to understanding success in schools: (1) Key reform components—what efforts are a school engaging in to generate improvement?, (2) Implementation mechanisms—how is a school developing and supporting these components?, and (3) Outcomes—what is the relationship between a school's improvement model (inclusive of both its key components and their implementation) and academic achievement?

Decades of research have identified key components of effective schools (e.g., Purkey & Smith, 1983), however, there is still much work to be done in exploring how to develop these components of effective schools. The research by Bryk et al. (2010) on school improvement operationalized key components of effective schools by developing measures of the five essential supports for school improvement. In their research that used these new measures, Bryk et al. (2010) found that the five supports—school leadership, parent-community ties, professional capacity, student-centered learning climate, and instructional guidance—are *all necessary* for school improvement. They additionally found that a weakness in even one of these areas

significantly reduced the likelihood of success (Bryk et al., 2010). The five essential supports provide a useful framework for understanding the key components of various school improvement models. By measuring the strength of the five essential supports in different school improvement models, we can identify critical components of each model's reform strategy, and evaluate where a school ought to focus its efforts to improve. In other words, we can use measures of the essential supports to paint a picture of a school's approach to improvement—for example, does its reform strategy emphasize school climate over instruction? These measures also shed light on areas where the school could bolster its efforts, thereby increasing its chances for success.

In studies of school reform, research has long recognized the importance of studying both implementation and outcomes as there is consensus that the success or failure of an intervention or policy is best understood within the context of how it was implemented (e.g., Berends, 2000; McLaughlin, 1987). For instance, if a study found that an academic intervention had no impact on student achievement, one would want to know if the intervention was implemented as prescribed (or, in other words, with fidelity) before making assumptions about the intervention's usefulness. Similarly, if a study found an intervention to have a tremendous impact on student achievement, one would want to know how the intervention was actually implemented—for instance, what mechanisms were used, so that those insights could inform the scaling up of the reform. My proposed integrative framework for school improvement employs the use of Desimone's (2002) adaptation of Porter and colleagues' policy attribute theory in order to facilitate a fine-grained analysis of implementation that can be used to identify levers for school improvement. By measuring the levels of the five policy attributes within various school improvement models, we can identify what approaches schools take to building the five essential supports and implementing their overall reform strategies. Whereas the five essential supports paint a picture of a school's approach to improvement—or, to put it another way, tell the story of *what* a school is doing; the five policy attributes look under the hood of school improvement, shedding light on *how* a school builds the five essential supports and implements its overall strategy for improvement.

An integrative framework for school improvement allows us to unpack the idea of “success” in school reform and use careful examination of reform components and implementation strategies to gain an understanding of why a particular school improvement model is or is not associated with gains in academic achievement. My proposed integrative framework for school improvement hypothesizes that school improvement, as measured by academic achievement, is mediated by the essential supports and policy attributes and allows for interactions among all these aspects of reform. We can think of the essential supports and policy attributes as a system of gears that work together to generate school improvement (as measured by academic achievement). The conceptual framework depicting an integrative framework for school improvement is shown in Illustration 1 below.



Pushing past the historically narrow definition of success is something that has been called for by many researchers (e.g., Berends et al., 2002; Desimone, 2002). The integrative approach to assessing school improvement utilized in this study does define improvement in

terms of achievement as measured by standardized tests, but by including measures of the essential supports and policy attributes in analyses, I join other researchers in challenging the standard assumption that improved student achievement as measured by standardized tests adequately captures the complexities of school improvement (e.g., Datnow & Stringfield, 2000; Hallinger & Murphy, 1986; Purkey & Smith, 1983; Rosenholtz, 1985; WWC, 2008). In fact, this integrated approach to assessing the success of school turnarounds is uniquely suited to capture the complexities of school improvement allowing us to answer questions that dig deeper than the typical: Was this model successful in terms of improving academic achievement? Using an integrative framework for school improvement allows researchers to capture answers to questions such as:

- What are the key components in different models' strategies for reform?
- How do schools build and support these key components?
- How do these key components and their implementation work in tandem to generate (or hinder) success?

In essence, rather than serving as the end game of a study as is typical in evaluations, with an integrative framework for school improvement, academic achievement provides context for understanding how and why school improvement models do or do not work. This framework is the beginning of a conversation about how we can generate success in schools, and it allows for a more nuanced analysis of implementation and outcomes that will help researchers and practitioners to better understand how we can leverage knowledge about the essential supports and policy attributes and the dynamics between these two systems to identify pathways to success. I believe that this new framework proves useful in evaluating the key components of the newest approach to comprehensive school reform—school turnaround, and in assessing how policymakers and implementers might leverage various aspects of implementation to create effective school improvement models at scale.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

Research Questions

My research questions are designed to assess the effectiveness of different approaches to school turnaround in the School District of Philadelphia using the essential supports and policy attributes to better understand the key components of each school improvement model, what mechanisms are used to facilitate the development and support of these components, and how these various features of school improvement models relate to success as measured by academic achievement. This careful examination of reform components and implementation strategies, as measured by survey constructs and described by principals and teachers in interviews, will facilitate an in-depth understanding of why particular school improvement models are associated with gains in academic achievement whereas others are not. The research questions for the study are as follows:

1. What is the relationship between the School District of Philadelphia's various approaches to school turnaround and academic achievement?
2. To what extent do the essential supports and policy attributes mediate the relationship between school turnaround and academic achievement?
3. What are the key components of the Mastery Charter Schools, Universal Companies, and the Promise Academy models of school improvement as measured by the essential supports?
 - a. How can we describe the implementation of the essential supports using policy attribute theory?
4. How do teachers' and principals' descriptions of their schools' approaches to improvement map on to the essential supports and policy attributes, and help to explain the relative successes and challenges of each school improvement model?

Research Design

This study was conducted within the context of a new and unique researcher-practitioner partnership between the School District of Philadelphia (SDP) Office of Research and Evaluation

and the University of Pennsylvania Graduate School of Education. The study uses a theory-driven evaluation with a quasi-experimental design to conduct a fine-grained analysis of the implementation and effectiveness of two central approaches to school improvement in the District—namely, restart and turnaround models, as compared to a group of traditional public schools in the District that were not selected to partake in targeted improvement efforts. As mentioned in Chapter 1, restart and turnaround models are particular school improvement options defined by the U.S. Department of Education (USDOE) as part of its overall strategy for turning around our nation's lowest performing schools (USDOE, 2009a). In Philadelphia, both restarts (formally called Renaissance Charters), and turnarounds (formally called Promise Academies) hire new principals², replace at least 50 percent of staff, and implement a comprehensive plan for improvement. The critical difference between the restart and turnaround models is that restarts are operated a by charter or education management organization whereas the District continues to operate the turnaround schools. Colloquially, *all schools are referred to as “turnarounds.”*

In addition to analyzing school-level achievement data to compare the effectiveness of different approaches to school improvement, I use an integrative framework of the essential supports and policy attributes to systematically describe and classify the improvement models, and additionally conduct implementation analyses conditioned on model attributes to further investigate the mechanisms through which the District's central school improvement efforts work (or do not work) to improve student achievement. The centerpiece of these implementation analyses are constructs built from the District-Wide Teacher Survey, which was designed by the SDP-Penn GSE Shared Solutions Partnership and administered to all teachers in the SDP in Spring 2015. The quantitative findings from this study are supplemented with interviews and observations from a subset of six schools undergoing improvement— two operated by Mastery Charter Schools; two operated by Universal Companies; and two Promise Academies, operated by the District. By engaging in mixed methods research, I aspire to capitalize on the strengths of

² An exception is made if a principal has been at a school for two or less years when it is identified for turnaround (Stratos et al., 2014). One school in our sample did retain its principal post-turnaround.

both qualitative and quantitative research while “minimiz[ing] the weaknesses of both” (Johnson & Onwueabuzie, 2004, pp. 14-15). Together, the quantitative and qualitative analyses will enhance our understanding of how different school improvement models work (or do not work) to improve student achievement and additionally paint a vivid picture of what various manifestations of school improvement look like in the SDP in terms of their key components, mechanisms for implementation, and relationship to academic achievement.

The value of theory-driven evaluations has been recognized by many researchers (Adedokun, Childress, & Burgess, 2011; Bledsoe & Graham, 2005; Chen, 1990; Weiss, 1994). Theory-driven evaluations can be used to move past discussions about whether or not a program worked, on to discussions about *how* a program or intervention operates (Chen, 1990; Smith, 1990); they can furthermore be used diagnostically to inform improvements to the program or intervention being evaluated (Mark, 1990). Bledsoe and Graham (2005) define theory-driven evaluation as “using a synthesis of both stakeholder program logic and social science theory to define what a program does, in what manner, and how much of an effect each goal and objective can have on the outcome” (p. 307). A barrier to successful theory-driven evaluations is often the gap in knowledge and understanding that exists between researchers and practitioners. This gap makes it difficult for a consensus to be reached about not only the underlying program theory, but also how the evaluation should proceed (Bledsoe & Graham, 2005). The set-up of the SDP-Penn GSE Shared Solutions Partnership, with its emphasis on bridging the gap between research and practice and facilitation of ample opportunities for researcher and practitioner collaboration, creates an optimal environment in which to conduct a theory-driven evaluation.

For the larger Partnership study, the Shared Solutions Team and I decided to use a matched comparison, quasi-experimental design. A matched comparison design intends to replicate a randomized control trial, the gold standard in education research (Song & Herman, 2010). As Stuart and Rubin (2007) explain, “matching seeks to identify subsamples of treatment and control units that are “balanced” with respect to observed covariates,” thereby creating two groups “that are, at worst only randomly different from one another on all observed covariates” (p.

155). As Rossi, Lipsey, & Freeman (2004) explain, “[t]he logic of this design requires that the groups be matched on any characteristics that would cause them to differ on the outcome of interest under conditions when neither of them received the intervention” (p. 275). To identify the comparison group of schools for this study, we used individual matching, which, while more difficult and time-consuming than aggregate matching, is the preferable technique, as it is more precise (Rossi et al., 2004). To identify our matches, we created a composite indicator for every school in District (inclusive of treatment schools) and identified matches using the nearest neighbor method, selecting the comparison school with the smallest difference in composite indicator for each treatment school (Stuart, 2010). The composite indicator consisted of school-level z-scores for the following variables (school-level data was provided by the SDP):

1. Achievement: Percent of student population scoring proficient in English Language Arts (ELA) on the Pennsylvania System of School Assessment (PSSA) and percent scoring proficient in Math on the PSSA—two separate indicators.
2. School-level Demographics: percent black (Black), percent white (White), percent Asian (Asian), percent Latino (Latino), percent Special Education (Sped), percent English Language Learner (ELL), and percent Economically Disadvantaged (ED).

The formula for the composite matching variable was:

$$\text{Composite} = \text{ELA} + \text{Math} - \text{Black} + \text{White} + \text{Asian} - \text{Latino} - \text{Sped} - \text{ELL} - \text{ED}$$

It is important to note that while steps such as matching were taken to best approximate a randomized control trial, as a quasi-experimental design, this study does not purport to be causal, but rather is exploratory.

The qualitative portion of the study draws on the phenomenological, multiple case study approach. In phenomenological studies, “individuals seek understanding of the world in which they live and work,” the researcher looks for complexity, and he or she “rel[ies] as much as possible on the participants’ views of the situation” (Creswell, 2013, pp. 24-25). For this study, the purpose of the interviews is to understand school improvement models from the perspective of principals and teachers, and describe how teachers’ and principals’ descriptions of their schools’

approaches to improvement map on to the essential supports and policy attributes, using their rich descriptions to help to explain the relative successes and challenges of each school improvement model. The purposeful choice of six schools (discussed more in the forthcoming sample section)—two run by Mastery Charter Schools, two run by Universal Companies, and two run by the District, allows me to illustrate meaningful variation (Creswell, 2013) among and within improvement models—richly describing, for instance, what essential supports are targeted by each improvement model and what mechanisms of implementation (policy attributes) are employed to develop and strengthen these supports.

Quantitative sample. The treatment condition in this study is schools engaging in various school improvement efforts in the SDP—namely a subset of Renaissance Charters (restarts) and Promise Academies (turnarounds). For ease of comparison and additionally because in Philadelphia the number of elementary/middle schools engaging in improvement far exceeds that of high schools, this study focuses on elementary schools only. The decision to limit our sample to elementary/middle schools is supported by research that has found notable differences in effective reforms for secondary and elementary schools (e.g., Firestone & Herriott, 1982; Lee et al., 1983).

The Renaissance Initiative was launched in 2010 by former superintendent Arlene Ackerman, and since its inception there have been multiple cohorts of schools that participated in this District-led turnaround initiative. We chose to include only schools in either Cohort 1, the first, or Cohort 4, the most recent, of the Renaissance Charter Initiative. We included Cohort 1 schools because those schools have had the longest time to implement their models of improvement, and, as research has shown, school reform takes time (Berends, 2000; Cohen & Ball, 1990; Desimone, 2002). Cohort 4 schools were included in the study because they are the most recent implementers of their given models of reform and, in the case of the Promise Academies, these schools were reported as having difficulty implementing their given model of reform due to resource issues in the District (Graham, 2011; Stratos et al., 2014). A recent qualitative study of Promise Academies and Renaissance Charters from the Office of Research and Evaluation found

that there was no longer a specific “Promise Academy” model of reform being implemented in the District, and we determined that the possible devolution of the model would make for a good point of comparison in analyses (Stratos et al., 2014). Our discussions about sample centered around the usefulness of making comparisons not only between schools identified for improvement and those that were not, but also the advantages of making comparisons within models *and* among different approach to improvement—comparing schools implementing a Renaissance Charter model to those using the Promise Academy model. The interest in comparing Renaissance Charters to Promise Academies excluded Cohort 2 and Cohort 3 schools of the Renaissance Initiative from the sample as there were not any elementary/middle Promise Academies “turned around” for those cohorts.

As mentioned previously, to identify our matches, we created a composite indicator for every school in District (inclusive of treatment schools). Noting the cohort design of the study, we identified matches for Cohort 1 schools using data from the 2009-2010 school year (the baseline year for Cohort 1), and matches for Cohort 4 schools using data from the 2012-2013 school year (the baseline year for Cohort 4). Beginning with the 2009-2010 school year (baseline for Cohort 1), we sorted schools based on their composite indicators and used nearest neighbor matching to identify a comparison school for each Cohort 1 treatment school (Stuart, 2010). We then moved on to the 2012-2013 school year, removed any schools that were already matched and included in our sample, and repeated the nearest neighbor matching process to identify comparison schools for Cohort 4. As charter schools are not eligible for participation in the District’s school improvement process, all matched schools were traditional public schools.

The sample for the quantitative portion of this study includes a total of 34 schools: 9 Renaissance Charters (six in Cohort 1; three in Cohort 4), 8 Promise Academies (four in Cohort 1 and four in Cohort 4), and 17 matched comparison schools (see Table 1, on the following page). As mentioned earlier, while all models are colloquially referred to as “turnarounds,” Promise Academies, which are operated by the District employ the U.S. Department of Education defined turnaround strategy, whereas the Renaissance Charters are classified as restarts. Whereas all

turnarounds (Promise Academies) are operated by the District, as restarts, Renaissance Charters can be operated by a variety of charter operators. Within our sample there are three distinct operators of Renaissance Charters: Mastery Charter Schools, Universal Companies, and Young Scholars.

Table 1. Study Sample						
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Renaissance Charter <i>Cohort 1 (n= 6)</i>	Cohort 1 baseline					
Mastery (n=3)						
Universal (n=2)						
Young Scholars (1)		Year 1	Year 2	Year 3	Year 4	Year 5
Promise Academy <i>Cohort 1 (n= 4)</i>						
Renaissance Charter <i>Cohort 4 (n= 3)</i>				Cohort 2 baseline		
Mastery (n=1)						
Universal (n=1)						
Young Scholars (n=1)					Year 1	Year 2
Promise Academy <i>Cohort 4 (n= 4)</i>						

Qualitative sample. Qualitative data was collected at six school sites selected from the larger sample of 34 schools as part of a Shared Solutions' initiative to supplement survey data with interview data that captures teachers' and principals' perspectives on schools' unique approaches to improvement and what successes and challenges they associate with their schools' models of reform. Again, noting that school reforms take time to implement, we focused our qualitative study on *only those schools in Cohort 1 of the Renaissance Initiative*. At the time of data collection, these schools had had five years to implement their given models of reform. We believed these schools, because of the time they had had to implement, would be the most likely to exhibit features of their given turnaround models. Additionally, prior research had shown that the Promise Academies from Cohort 1 were the only Promise Academies that maintained some semblance of the Promise Academy model after extensive budget cuts and instability in the District (Stratos et al., 2014). Within the Cohort 1 schools, we narrowed our focus to two schools

per model—specifically, two schools operated by Mastery Charter Schools, two operated by Universal Companies, and two operated by the District (Promise Academies). Young Scholars did not have two schools in Cohort 1, and therefore was excluded from our qualitative sample. Including a minimum of two schools helps to differentiate between features that are unique to a school and those that are representative of a particular turnaround model. Not only were Mastery Charter Schools and Universal Companies the only charter providers in Cohort 1 that met our criteria of having at least two schools, but they are also the two largest providers of elementary school restarts in the District. As of the “October Snapshot” for the 2014-2015 school year (the year of data collection), a total of 3,992 students attended one of Mastery Charter Schools’ six elementary school restarts and a total of 3,004 students attended one of Universal Companies’ five elementary school restarts³ (Pennsylvania Department of Education, 2015a). Together Mastery and Universal restarts are responsible for educating approximately seven percent of K-8 District students.⁴ As explained previously, the District is by definition the only operator of the Promise Academies. In total, the District’s eight elementary school turnarounds⁵ serve 4,157 students, or approximately four percent of K-8 District students (Pennsylvania Department of Education, 2015a).

While there were three Mastery and three Promise Academies part of Cohort 1, resource limitations within the context of the larger Shared Solutions study prevented the study of more than two schools per model.⁶ To identify which of the three Mastery and Promise Academies would be part of the qualitative sample, the Shared Solutions team and I considered academic achievement data for the schools, specifically the change in students scoring advanced and proficient as presented in the Office of Research and Evaluation’s (ORE) prior quantitative analysis of the Renaissance Initiative (Wolford, Stratos, & Reitano, 2013). We examined the total

³ All but two Mastery restarts serve grades K-8 (two serve only K-6). Three Universal restarts are K-8, one is K-6, and one only serves grades 5-8.

⁴ District students does not include those at Charter Schools; if we are inclusive of Charters—Mastery and Universal restarts account for nearly five percent of K-8 students

⁵ All but two turnarounds serve grades K-8 (one serves only 6-8 and another is K-5).

⁶ In addition to these site visits, Shared Solutions needed to collect data at six other schools for its larger study of school improvement.

change in students scoring advanced and proficient at each school since the turnaround models were first implemented and, after much discussion, we elected to include the school with the least change in academic achievement, as well as the school with the second highest gain in academic achievement. District staff maintained that prior research demonstrated that the schools with the most gains were outliers and consequently we concluded that they would not be accurate points of reference for identifying and exploring the true models of improvement implemented at these schools.

Because the Shared Solutions study, of which my dissertation is a central component, is part of ongoing monitoring and evaluation efforts undertaken by the District, recruitment into the study was informal and mandatory. Principals at schools in our target sample received an e-mail informing them that their schools had been identified for participation in the Partnership's study of school improvement, and they (as well as teachers and parents/guardians at their schools) were invited to participate in survey focus groups at the District and to attend a breakout group hosted by the Partnership at the second annual SDP Research, Policy, and Practice Conference in March of 2015. Tonya Wolford and her team at the Office of Research and Evaluation took the lead on contacting principals and teachers for interviews. As part of ongoing monitoring and evaluation efforts, schools were not eligible to decline from participation. The District is striving to create a culture in which ongoing monitoring and evaluation is a regular component of any staff member's and school's role in the District. The SDP successfully garnered the participation of Promise Academies and Renaissance Charters in their prior evaluations of these efforts, demonstrating the District's productive working relationship with these schools, and serving as a positive indicator of staff's support of the District's move toward being a more research-based organization. Nevertheless, recognizing the importance of allowing participants an opportunity to buy-in to research efforts (Datnow, 2000), the Partnership went to extra lengths—including inviting study participants to our conferences, seeking study participant feedback on instrument development, forming and inviting participants to join principal and teacher advisory groups, and

providing schools with thank you cards and donuts during the site visits—to help ensure that participants felt valued and actively engaged in our work.

At least two Shared Solutions researchers (myself included) were present for each site visit, including all interviews and observations. A second researcher and I took turns conducting the interviews (one researcher would conduct an interview, while the other took notes and watched the time), however, I was present at *all interviews* conducted for the study. The team followed a strict post-site visit protocol to ensure fidelity and quality of the qualitative data. For example, requiring that full fieldnotes and interview summary sheets be uploaded within 24 hours of completing the site visit. All qualitative data was de-identified and stored on a secure server.⁷

In keeping with the standard of research and best practices set by the ORE's qualitative study during the prior school year, and to ensure minimal interruptions to schools' daily activities, all interviews and observations for a given school took place on the same day. Comprehensive Site Visits, lasting between approximately four and seven hours were coordinated with each school's principal by the ORE. During these visits, two or more trained Shared Solutions staff conducted a school walk through, principal and teacher interviews, and a classroom observation. To best accommodate schools' and teachers' schedules, all times and locations were decided on by the principal (or someone within his or her office). To reduce any selection bias, increase consistency within our sample, and also ensure a more representative sample of interviewees at each school, we asked that principals arrange interviews according to the specifications outlined in Table 2 on the following page. The criteria presented in this table was chosen based on hypotheses that teachers in tested grades and subject areas may have a different experience at school than those in non-tested grades and subjects; same with teachers who are new versus those who are more experienced. Furthermore, we aimed to interview teachers who have been teaching at the school since *before* it was “turned around” as well as those who joined post-

⁷ To ensure confidentiality of teachers, we removed personally identifiable information from materials and data and used an alphanumeric code as an identifier. Only key study personnel have access to transcripts and audio files. Direct quotes will be used in research reports, but will not be attributable to any individual person. No names will be used in the research products that result from our study. The audio files will remain on a secure server (Penn Box) for up to 10 years, at which time they will be destroyed. We store all study documents in locked filing cabinets in locked offices, to which only key study personnel have access; all electronic files will be stored on a secure server (Penn Box).

turnaround in order to see if their experiences with the reform varied, and whether or not teachers' experience with the model changed over time. Please see Appendix A for complete site visit scheduling documents.

Table 2. Interviewee Criteria

We would like to interview teachers that meet the following criteria, ideally *during their prep period, before or after school, or any time during the day that might be convenient*:

1. A teacher who serves in a leadership position (e.g., a teacher who serves on a school leadership committee, a grade-group leader, etc.).
2. A 3rd grade teacher
3. A teacher in lower-elementary (Grades K-2)
4. A teacher in upper-elementary (Grades 4-8)

For the qualitative portion of my dissertation, I analyze interview and observation data from six site visits made to Cohort 1 Renaissance Charters and Promise Academies during spring 2014. For my qualitative research, I visited two Mastery Charter Schools, two Universal Companies Charter Schools, and two Promise Academies, interviewing a total of 6 principals and 24 teachers (see Tables 3 and 4 on the following page). Selecting two of each type of school improvement model within a single cohort allowed me to make direct comparison of these three improvement models' theories of change, while also creating an opportunity to consider within model variation in implementation.

Table 3. Teacher Interview Sample					
Improvement Model	Number of Teachers Interviewed	Include Teacher Leader?*	Include First-Year Teacher?	Include Pre-Turnaround Teacher?***	Average Years Experience at Current School
<i>Mastery Charter Schools</i>	8	Yes	No	No	4
<i>Universal Companies</i>	8	Yes	Yes	Yes	4
<i>Promise Academy</i>	8	Yes	No	Yes	4

Table 4. Principal Interview Sample***	
Improvement Model	Average Years Experience at Current School
<i>Mastery Charter Schools</i>	3.5
<i>Universal Companies</i>	3
<i>Promise Academy</i>	4

*A teacher is a teacher who serves in a leadership position. For example, a teacher who serves on a school leadership committee or is a grade-group leader.

**A pre-turnaround teacher is a teacher who taught at the school prior to its identification for participation in the Renaissance Initiative (turnaround)

***Other descriptors of the sample are excluded to protect the identify of the principals

Data Sources

Again, the data for this study draw on a larger data collection effort undertaken by the Shared Solutions Partnership. Data sources include achievement data, administrative data, survey data, as well as interview and observation data.

Achievement data. The primary outcome variable in the quantitative analyses is school-level achievement on the Pennsylvania System of School Assessment (PSSA). The PSSA is a standards-based, criterion-referenced assessment that is administered by the District each spring to students in grades three through eight in both mathematics and English Language Arts (ELA). The PSSA's explicit purpose is to measure students' attainment of academic standards and evaluate schools' success in helping students to attain proficiency in these standards (Pennsylvania Department of Education, 2014b). The 2014-2015 school year was the first year

for which all students were administered the new PSSA which is “align[ed] to the newly-developed Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards (PCS)” (Data Recognition Corporation, 2015, p. xxiv). All items on the test were extensively field tested, and standard procedures such as using multiple forms, conducting item-level analyses (difficulty and discrimination), Rasch analyses, and the Livingston and Lewis (1995) method to verify decision consistency and accuracy (e.g., for cut scores—are students being classified in the same performance categories using equivalent forms?) were employed to ensure reliability and validity of the assessments and the reporting of results in proficiency bands. For both ELA and Math, the state reports: “The overall test score reliability values are excellent, with all in the low 0.90s” (Data Recognition Corporation, 2015, p. 207). It is of note that in public discourse, the new PSSA is referred to as “tougher” and PSSA scores did dip as was expected with a new assessment. As *The Notebook* reported: “Officials have advised not to compare this year’s results to previous years because of the new exam.” (Socolar, 2015).

Lack of access to both student-level achievement data and grade-level mean scaled scores is a limitation of this study. As you may recall, the study sample of “turnaround” schools includes both Renaissance Charters and Promise Academies. Grade-level baseline achievement data (mean scaled PSSA scores) was available for all schools in the sample because, prior to being identified for turnaround, all schools were operated by the District, which regularly collects achievement data on its schools. Post-identification for turnaround, the Renaissance Charter schools, as their name suggests, became classified as charter schools. As charter schools, they operate semi-autonomously from the District and the District does not have access to student- or grade-level PSSA data for these schools. The Partnership made numerous attempts to acquire this data from the state and to collaborate with the District’s charter school office to collect achievement and administrative data for the Renaissance Charter schools. The District also made separate requests to obtain this data for its own internal use. None of these efforts were fruitful, and the District is still waiting for student- and grade-level PSSA data from the State.

Consequently, the best available achievement data was used in our analyses. Grade-level mean scaled scores were used to control for prior achievement, and state-reported PSSA proficiency bands were used to construct our school-level outcome variables. The choice to proceed with the best information available (proficiency bands rather than the preferred and more precise mean scaled scores), while not ideal from a research perspective, is reflective of compromises that must be made when operating within the very political and “real” environment of a researcher-practitioner partnership. While less precise than mean-scaled scores, proficiency bands are used by both the Pennsylvania Department of Education (PDE) and the SDP to evaluate the performance of schools and make accountability decisions. For example, it is proficiency bands that are used in identifying schools for turnaround or closure. This routine and institutionalized use of proficiency bands for accountability purposes makes them a very practical outcome measure for our study. If the end goal is to estimate whether or not improvement models are related to student achievement, and student achievement is routinely operationalized in the form of proficiency bands, then using these bands as an outcome variable is not only a practical, but also a theoretically sound decision (Pennsylvania Department of Education, 2015b; School District of Philadelphia 2015c).

Creating achievement variables. For baseline achievement data (used as a covariate in my analyses), school-level mean scaled scores were created for ELA and Math. As previously mentioned, the PSSA is administered by the District each spring to students in grades three through eight in both mathematics and English Language Arts (ELA). The schools in our sample cover a variety of grade-spans (some K-6, others K-8; furthermore, one school serves only grades 3-5 and two only serve grades 6-8). Because of variability in the grade-spans covered by schools in the sample and research suggesting that reforms have different impacts on upper as opposed to lower grades (Calkins et al., 2007), I created two baseline achievement and two outcome variables, for both ELA and Math (that is, two baseline and outcome scores for ELA and two baseline and outcome scores for Math). The first set of scores were constructed using *only*

data on grades three through five, and the second set using *all available data* (grade three through eight).⁸

Baseline achievement scores, for which the Partnership had access to grade-level mean scaled scores for all schools in the sample, were constructed as follows:

Step 1: Standardize ELA and Math PSSA mean-scaled scores for *each grade* 3-8, within cohort—standardize Cohort 1 (2010-2011) together; and then Cohort 4 (2013-2014) together.

Step 2: Create a school-level baseline PSSA score for ELA and one for Math by taking the mean of standardized grade scores. Again, this was done for only grades three through five and then repeated for all available grades, three through eight.⁹

Our outcome variables were constructed using school-level PSSA proficiency data which is reported by the state through the Pennsylvania Department of Education and made publicly available as percent of students within a school scoring within four proficiency bands ranging from below basic to advanced. ELA and Math outcome variables for the analysis were constructed as follows using the state's 2014-2015 achievement data:

Step 1: Multiply percent of students scoring in each "band" by the numbers below and sum to create a total *grade-level* PSSA score for ELA and Math, separately

- Below Basic = x 1
- Basic = x 2
- Proficient = x 3
- Advanced = x 4

Step 2: Create a school-level achievement outcome variable for ELA and Math

(separately) by taking the mean of the grade-level scores created in Step 1. Again, this

⁸ Please note that baseline and 2014-2015 achievement data *does not* include data from the Pennsylvania Alternate System of Assessment (PASA) or the PSSA-Modified—assessments available for English Language Learners (ELLs) and students with IEPs, 504 plans, and ESL plans (Pennsylvania Department of Education, 2015a).

⁹ Note: specify a minimum of at least one score (i.e., achievement data for at least one of the grades in the span 3-5 or 3-8). A few schools are missing data for a grade that they do serve; this is in compliance with The Family Educational Rights and Privacy Act (FERPA) regulations which requires reported scores to be suppressed when the total number of students tested is 20 or less.

step was done first for only grades three through five and then repeated using all available grades, three through eight.

Separate regression models were estimated for each of the outcome variables.

Administrative data. In statistical modeling, it is standard procedure to account for school-level characteristics that are hypothesized to be related to achievement. Covariates are included in regression models to remove bias from the estimates of treatment effect (Steiner, Cook, Shadish, & Clark, 2010). In addition to measures of prior achievement (McCoach, O'Connell, & Levitt, 2006), race, ethnicity, gender, economic disadvantaged status, and indicators for English Language Learners and students with learning disabilities are often included in regressions estimating the effects of treatments in education. In baseline analyses that tested the differences between my treatment and comparison groups, I used the following, school-level demographics (data available from the District):

- Percent American Indian/Alaskan Native
- Percent Asian
- Percent Black
- Percent Hispanic
- Percent Multi-Race/Two or more races
- Percent Native Hawaiian or other Pacific Islander
- Percent White
- Percent Female
- Percent English Language Learner (ELL)
- Percent of students with Individualized Education Plan (IEP)
- Percent Economically Disadvantaged¹⁰

¹⁰ District members of the Shared Solutions staff noted that percent economically disadvantaged is not a useful indicator. As of 2014-2015 school year, the SDP opted into the Community Eligibility Provision for the National School Lunch Program and National School Breakfast Program, making *all students* in the SDP became eligible for free breakfast and lunch without needing to apply. Previously, Economically Disadvantaged rates were estimated using a survey-based

Noting constraints on power due to a small sample size and a heavily specified model, and being mindful of the risk of overfitting (Babyak, 2004; Breiman & Freedman, 1983), baseline analyses informed the creation of an “Index of Disadvantage” to include along with percent White as covariates in the final regressions. Index of Disadvantage is a school-level variable, calculated using demographic data available through the Pennsylvania Department of Education’s School Performance Profile’s 2014-2015 Fast Facts. It is equivalent to the percent of ELLs at a school plus the percent of students with IEPs.

Survey data. As previously mentioned, this study capitalizes on the core set of instruments that were jointly developed as part of the SDP-Penn GSE Shared Solutions Partnership. Drawing on the effective schools literature and Bryk et al.’s (2010) research on the five essential supports for school improvement, I led development of the Shared Solutions team’s creation of a set of surveys (principal, teacher, parent/guardian, and student) that measure five key dimensions of school improvement: leadership, parent/guardian-community ties, professional capacity, climate, and instruction.¹¹ These surveys built on and refined items from pre-existing and validated instruments including Bryk et al.’s (2010) core measures of the essential supports as outlined in Bryk et al.’s (2009) *Survey Measures, Factors, Composite Variables, and Items Used in Organizing Schools for Improvement: Lessons from Chicago*. Questions and items that capture teachers’ perceptions of the policy attributes were purposively embedded within the teacher survey. Measures of the policy attributes also drew on pre-existing and validated instruments, in particular Porter et al.’s (1988) previous work measuring policy attributes. Please see Appendix B for a copy of the 2014-2015 District-wide Teacher Survey, and Appendix C for a list of list of survey constructs and their corresponding question and items.

statistical study. According to the SDP (2015b) they “now represent the percentage of Identified Students [those eligible for the program] multiplied by a USDA-defined factor of 1.6, and are capped at 100%.”

¹¹ These topics draw on Bryk and colleagues’ (2010) work in Chicago, which identified five essential supports for school improvement. Shared Solutions altered the language of the essential supports to make the terms more publicly accessible and reflect the broader set of questions covered by the surveys. The original names of the five essential supports identified by Bryk and his colleagues are: school leadership, parent-community ties, professional capacity, student-centered learning climate, and instructional guidance.

Survey development process. A critical component of Shared Solutions' survey development was the inclusion of stakeholder feedback at every stage of the process. Participant feedback at Shared Solutions' first conference: *Developing a System of Excellent Schools* played a key role in survey development. The purpose of this conference was to provide a forum for diverse groups of stakeholders to share their successes, challenges, and ideas about factors that are helping or hindering implementation of school improvement efforts, and additionally to provide critical feedback on the District Plan's Action Plan v2.0. The collective working theory of action, that defines school success and suggests how it can be achieved, outlined at the conference informed identification of constructs and initial selection of items for the first draft of the surveys. Once the preliminary drafts had been vetted by researchers (myself included), we held multiple focus groups and cognitive interviews with principals, teachers, parents/guardians, students, and school and district administrators during which these stakeholders provided feedback on the surveys. Participants in focus groups were representative of a variety of race, genders, and ethnicities as well as schools, grades, subjects, and communities. During focus groups, participants were asked questions such as: "Was there anything confusing about the question?" and "Did you have any trouble fitting your answer with the response categories?" Participants were also asked questions about survey administration, such as: "What do you suggest is a good "window" of time for completing the survey?" and "What can the District and/or your principal do to facilitate your completing the survey?" For a full list of focus group questions and instructions see Appendix D.

Cognitive interviews and focus groups are viewed as a critical component in designing a survey (Fowler, 2014). This process helps to identify flaws in the survey (for example, confusing wording or misinterpretation of the question) and to improve survey questions (Fowler, 1995). Desimone and LeFloch (2004) reported that, in their research, conducting such labs has improved the quality of survey instructions. After each round of focus groups/cognitive interviews, feedback was reviewed by our Instrument Development working group and the surveys were revised accordingly before the next round of cognitive interviews. All-in-all, survey development

took approximately six months, and each survey went through over 10 rounds of intensive review and revisions.

Survey administration. This analysis draws on data from the District-wide Teacher Survey, which was administered to all teachers in the District¹² online via an e-mail link between May 18th and June 19th, 2015. Teachers were not required to participate in this data collection, and e-mail/web-based surveys typically have lower response rates (e.g., Mertler, 2003; Sheehan, 2001). Noting that “higher response rates increase the credibility of a survey’s results,” we targeted an ambitious 80 percent response rate for all surveys (Fowler, 2014, p. 49). Despite using best practices to help boost the response rate such as: crafting a well-designed and clear survey; prominently featuring the Partnership, SDP, and Penn GSE logos on the survey; offering financial incentives; and making repeated contact and follow-ups with participants via e-mail and the phone (Fowler, 2014), within the study sample, the average response rate for a school was approximately 63 percent of teachers, with a low of 11.9 percent and high of 96.67 percent (standard deviation equal to 23.22).¹³ For a complete list of response rates by school please see Appendix E.

Survey measures. In total, the District-wide Teacher Survey measured 10 key constructs and 19 sub-constructs. Cronbach’s alphas were calculated for each of the constructs and sub-constructs to assess the internal consistency of the survey items. Cronbach’s alpha is a common measure of reliability that can be used to evaluate the extent to which a group of items are related (Cronbach, 1951; Santos, 1999). Cronbach’s alpha describes the extent to which items measure the same construct. For this study, Cronbach’s alphas were calculated for each of the five essential supports and five policy attributes, as well as their corresponding sub-scales. Cronbach’s alpha ranges from 0 to 1, and while definitions of an acceptable level of alpha vary, 0.7 is generally recognized as “acceptable” (Nunnally & Bernstein, 1994; George and Mallery, 2003; Tavakol & Dennick, 2011). All scale reliabilities for this study, with the exception of one, fell

¹² Charter Schools had to “opt-in” to the survey. All charters included in our sample did.

¹³ This is higher than the response rate for the District. A total of 5,423 teachers (53 percent) responded to the survey.

within the 0.67 and 0.961 range (average = 0.811), indicating an acceptable internal consistency between items within each construct and sub-construct, without item redundancy (Gliem & Gliem, 2003; Nunnally & Bernstein, 1994; Streiner, 2003). The construct “Power” had an alpha of 0.228, which is not unusual as it was a two-item indicator and alpha is, in part, a function of the number of items in a scale (Cortina, 1993). Once measures of the essential supports and policy attributes were validated, each of the constructs and sub-constructs measured by the survey were used to create “scores” for the essential supports, policy attributes, and their sub-topics. These scores were used as variables in my analyses.

Survey scoring. As laid out in Chapter 3: Conceptual Framework, this study is designed to explore the usefulness of an integrative framework for school improvement that considers the essential supports (leadership, parent/guardian-community ties, professional capacity, climate, and instruction) and the policy attributes (specificity, consistency, authority, power, and stability) as not only defining features of various improvement efforts in the SDP, but also as potential mediators of the relationship between these various improvement efforts and school improvement as defined by academic achievement. Consequently, a critical component of this study’s analyses was the development of indicators for each of the five essential supports and five policy attributes. As discussed in the forthcoming sections on analytic plan and results, these indicators are included as predictors in my regression equations.

All survey items were on Likert scales, and were scored on 0 to 6 point scales (depending on the total number of answer categories), with zero indicating the lowest (or most negative response).¹⁴ When appropriate, items were reverse coded. To view a full list of the constructs, sub-constructs and their reliabilities, please see Appendix F. Table 5 on the following page provides an overview of how these indicators were created. To account for partial response bias and help ensure validity of the survey scores, I required that teachers respond to a minimum of 50 percent of items within a sub-construct in order to be eligible for a sub-construct score.

¹⁴ Most commonly used answer categories were: Strongly Disagree, Disagree, Agree, Strongly Agree and Never, 1–4 times a year, 5–7 times a year, Monthly or about monthly (8 or 9 times a year). Weekly or about weekly, Daily or almost daily

Similarly, for a teacher to receive a construct-level score, he or she must have a score for at least half of the sub-constructs that comprise the construct. This decision was made based on response descriptives and took into consideration the number of items within sub-constructs, how many survey questions a sub-construct spanned, and how many dimensions of a construct we measured. The survey was designed to be precise and efficient—we used the minimum number of items necessary to capture each sub-construct and construct so as to reduce teachers' burden of taking the survey. Due to complexity of the carefully chosen items that make up each sub-construct (and of sub-constructs that make up each construct), weighting and imputation did not seem appropriate (Brick & Kalton, 1996). The threshold of 50 percent was chosen to maximize use of available data while maintaining construct validity. Minimum number of teacher responses for sub-scales and scales required to generate a construct (or sub-construct) score is in Appendix G.

Table 5. Guide to Creating Essential Supports and Policy Attribute Indicators

1. Create a teacher-level score for each sub-construct by calculating the mean across all items within a construct.
 - Specify that at least half of items for each sub-construct have to be answered (non-missing).*
 - Responses of "N/A" or "Don't Know" are recognized as missing
2. Create a teacher-level construct score by calculating the means across all sub-constructs
 - Specify that at least half of sub-constructs have to be scored
3. Aggregate individual teacher-level scores to the school level, creating school-level sub-construct and construct scores, using SPSS "aggregate mean" function. By default aggregate uses all non-missing values to calculate the aggregated variables
 - Lowest response rate for sub-construct/construct was 40% of teachers at a school



Prior to conducting analyses, diagnostic testing was done to ensure that the majority of variables were normally distributed, homoskedastic, and had linear relationships.¹⁵ Pearson's correlation coefficient was calculated for all combinations of sub-constructs and constructs in the sample in order to further validate our measures and determine if they are reliable. Correlations among variables (excluding correlations between constructs and their respective sub-constructs) ranged from 0.003 to 0.922, and many were significant. As prior research has demonstrated, all of the essential supports are not only correlated with achievement, but also with one another (Bryk et al., 2010). Furthermore, policy attribute theory holds that the greater the strength of each attribute, the greater the implementation fidelity of school reform efforts, indicating a relationship between the attributes and implementation fidelity and also relationships among the attributes (Desimone, 2002). It is not a far theoretic leap to then hypothesize that the essential supports and policy attributes correlate with one another — in fact, as both theories are intended to explain school improvement, one would expect that these variables be correlated.

Highly correlated variables pose a conceptual problem because the high correlation may indicate that the variables are not in fact measuring different constructs. High correlations may also indicate an analytic problem as multicollinearity poses a threat to the specification of regression models and estimation of the effects of variables (Farrar & Glauber, 1967; Schroeder, Sjoquist, & Stephan, 1986). In cases in which correlations were found to be high (defined as greater than 0.8), we revisited the survey questions to ensure that they are measuring different components (conceptually) and also to check where the items fell on the survey, as items asked near one another are more likely to be correlated. For example, because Professional Capacity and Consistency, and Climate and Authority scales were constructed from items asked within the same question (right next to each other on the survey), we may expect higher correlations.¹⁶ For correlations that exceeded 0.9, we additionally looked at the scatterplots at both the school- and

¹⁵ The Shapiro-Wilk's test identified 12 of the 29 constructs as non-normal. Normal Q-Q plots and histograms looked acceptable for the majority of these variables. Most — but not all—essential supports and policy attributes constructs and sub-constructs were linearly related. All diagnostic tests were run on the entire sample and also by treatment group.

¹⁶ In fact, for Question 17, which is split between two constructs (Professional Capacity: Peer collaboration and Consistency: Curriculum, 147 people (about 18 percent) select the same response category for each item, suggesting respondent bias.

teacher-level, which confirmed that variables are not collinear and did not post a threat to our analysis (See Appendix H). Within school correlations among variables (teacher-level correlations) generally tended to be lower than correlations at the school-level. Correlations are summarized in Table 6 on the following page. Please see Appendix I for all correlations.

Table 6. Summary of Pearson Correlations*			
Comparison Group			
	Minimum	Maximum	Average
Essential Supports	0.007402	0.836720	0.457028
Policy Attributes	0.017289	0.769332	0.374280
ES with PAT	0.006132	0.965595	0.469188
Essential Supports Min is expectations/feedback with teacher reflection (-) Max is peer collaboration with instruction (+)			
Policy Attributes Min is power with consistency PD (+) Max is authority total and consistency total (+)			
ES with PAT Min is stability: absenteeism and PD content (+) Max is consistency curriculum and peer collaboration (+)			
Treatment Group			
	Minimum	Maximum	Average
Essential Supports	0.005159	0.810561	0.357865
Policy Attributes	0.018536	0.853034	0.503327
ES with PAT	0.003489	0.906352	0.432486
Essential Supports Min is conceptual with innovation (+) Max is inclusive leadership with school climate (+)			
Policy Attributes Min is power with consistency curriculum (+) Max is normative authority with stability total (+)			
ES with PAT Min is stability: absenteeism with peer collaboration (-) Max is authority total with school leadership total (+)			
*Outside of their respective constructs/sub-constructs			

Interview data. Interviewing is used when you want to “develo[p] detailed descriptions,” “describ[e] [a] process,” and “lear[n] how events are interpreted” (Weiss, 1994, pp. 9-10). As Weiss (1994) points out, interviewing allows us to learn about people’s experiences, perceptions, thoughts and feelings, and meanings. For this study, the interview protocol was built around the five essential supports for school improvement, and for each essential support (leadership, parent/guardian-community ties, professional capacity, climate, and instruction), interviewees—principals and teachers—were asked questions about their school’s overall approach and philosophy, how the school’s approach is communicated to them, what role they play in these efforts, and lastly, what their perspective on their school’s strengths and challenges in each of these areas is. The interviews were semi-structured in nature order to ensure that the participants speak to particular aspects of school reform that we were interested in learning about (namely, the essential supports and policy attributes), while also allowing for new information about school turnaround, its implementation, and its impacts to be brought to light (Weiss, 1994). Interview protocols went through multiple revisions with Shared Solutions staff. For principal and teacher interview protocols, please see Appendix J.

Qualitative analyses were conducted on transcripts of the 30 interviews (24 teacher and 6 principal), each of which lasted approximately 45-60 minutes. Procedures for analysis will be discussed in the next section. Through interviews, we gained important insights insight into not only how the Mastery Charter Schools, Universal Companies, and Promise Academy models of turnaround operate logistically but also the impact these models have had on principals and teachers in the schools.

Analytic Method

Quantitative analysis. As previously mentioned, matching on a combination of demographic and academic indicators was used to select comparison schools for our analytic sample. In my analyses, I compared each school improvement model in the treatment condition to the *entire comparison group*, rather than accounting for the matched pairs. Typically if one uses a matched comparison design and pairing in his or her sample, it is appropriate to account

for pairing during analyses. However, as I will explain, the nature of my study sample and detail of the specified model posed a unique problem with regard to matching. While matching is intended to “reduce bias and increase precision” and therefore improve specification of and estimates for regression models (Rubin, 1973), I found that accounting for pairs did not significantly improve my models due to the significant baseline differences between treatment and comparison schools. Furthermore, noting the already small sample size ($n=34$) and the number of mediators specified in the model (10; 29 if you include sub-constructs), un-pairing the sample for analysis had the benefit of providing greater power, increasing the probability of finding true effects and making it more likely to determine such effects were statistically significant (Button et al., 2013).

Theoretically, there is a compelling argument to be made for ignoring pairing in analyses. The schools in the treatment condition (those engaging in District-initiated improvement efforts) were selected because they were the lowest performing schools in the District. If we assume that achievement in the District is normally distributed, in selecting the bottom 17 performers to comprise our treatment group, we essentially cut off the bottom of the distribution meaning that the “nearest neighbor” matches were not all that near, at least not in terms of academic achievement. Baseline analyses demonstrated that not only is ELA and math achievement significantly worse in the treatment condition (as we would expect, these were the schools identified as needing improvement) but there is a difference of approximately 1 standard deviation between the two group means, in favor of the comparison group. For results of these baseline analyses see Table 7 on page 74. Furthermore, the nature of the “operator” selection process for schools identified for District-initiated improvement is such that there is no logical reason as to why Mastery’s comparison schools would be any different from Universal’s or the Promise Academies’. Technically, a school that was identified to be turned around by Mastery had an equal likelihood of being turned around by Universal or the District—the decision comes down to heavily politicized negotiations. Conceptually, this means that it is reasonable, and perhaps preferable, to compare the performance of each improvement model (Mastery, Universal, and

Promise Academy) to the full universe of all the “potential” Mastery (or Universal or Promise Academy) schools in the comparison group. Taking this approach, comparing, for instance the four Mastery schools to all 17 comparison schools, increases statistical power.

To determine whether accounting for pairs improved my models, I ran a simple regression analysis (model type predicting ELA achievement (all grades)) on the paired sample once with the addition of covariates (prior achievement, percent White, and Index of Disadvantage), once without. Pairing of schools intends to remove variation on these covariates so that one would not need to account for covariates in his or her model, however, as mentioned above the best match for each of our treatment schools was not necessarily a good match. Given baseline differences, we wouldn't expect the pairing to eliminate much variation. Without covariates, the R-squared value for the model using a paired sample was 0.838 (0.801, adjusted). With the addition of our three covariates to the paired sample model, the R-squared value increased to 0.866 (0.786 adjusted), indicating that even after accounting for pairing, the covariates are able to explain additional variation in achievement outcomes. Furthermore, I found that in comparison to the un-paired data, using pairs did not make a significant improvement over simply including covariate data (R-squared for the unpaired data, including covariates was 0.808 (0.756, adjusted)). As a result of these compelling analytic findings and the theoretical support for un-pairing our sample, I conducted my analysis on the unpaired sample, considering each school improvement model against the full comparison group.

The full conceptual model tested in analyses is specified in Illustration 2 on the following page. A series of regression models, supplemented by MANCOVAs were used to analyze the administrative, assessment, and survey data collected for this quantitative, theory-driven evaluation using IBM's SPSS software.

Illustration 2. Model Specification

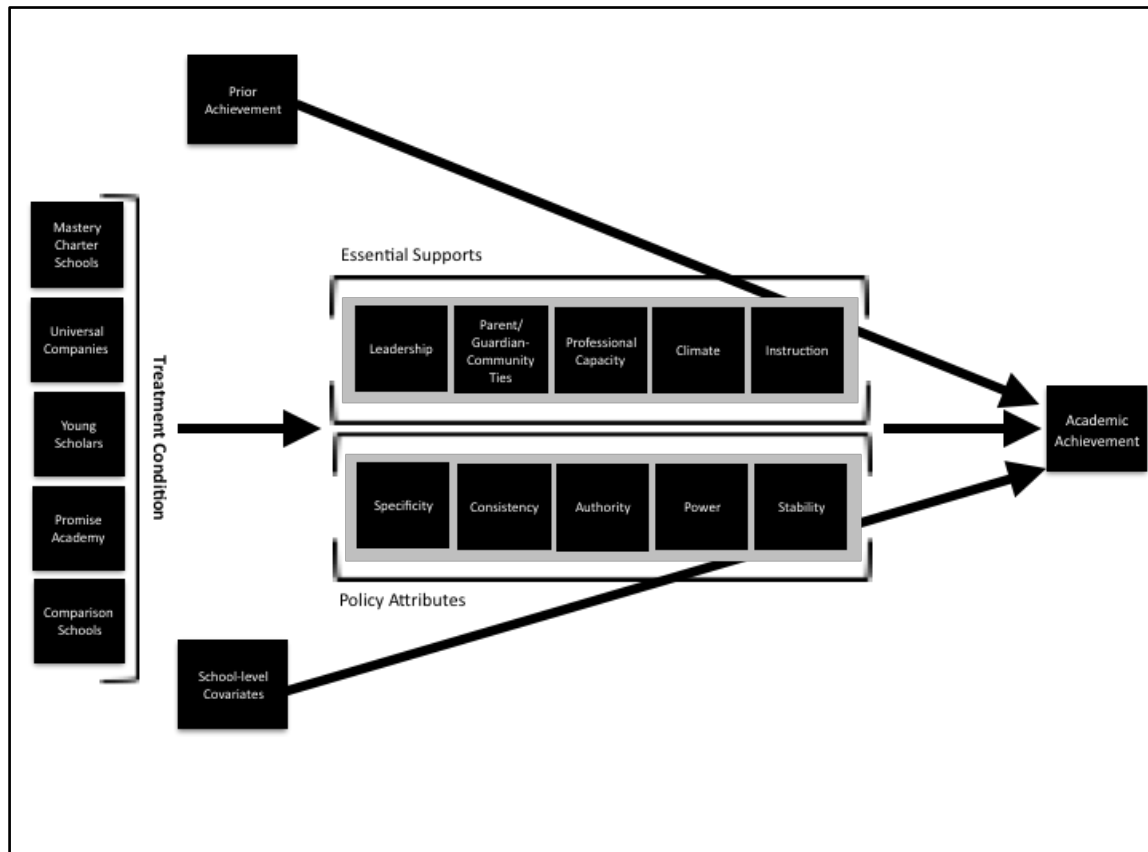


Table 7. T-Tests to Compare Baseline Differences Between Treatment and Comparison Groups					
Variable	Treatment Group	N	Mean	Mean Difference	Significant
ELA Achievement PSSA (Grades 3-5)	Comparison	16	0.4834	0.9541	0.0001927*
	Treatment	17	-0.4708		
Math Achievement PSSA (Grades 3-5)	Comparison	16	0.5587	1.0867	0.0000094*
	Treatment	17	-0.5280		
ELA Achievement PSSA (All Available Grades)	Comparison	17	0.4487	0.9135	0.0000632*
	Treatment	17	-0.4648		
Math Achievement PSSA (All Available Grades)	Comparison	17	0.5023	1.0193	0.0000087*
	Treatment	17	-0.5171		
Percent ELL	Comparison	17	9.8824	5.3529	0.0928976
	Treatment	17	4.5294		
Percent IEP	Comparison	17	17.5095	2.6312	0.1647917
	Treatment	17	14.8783		
Percent Economically Disadvantaged	Comparison	17	98.4102	3.0481	0.1318681
	Treatment	17	95.3622		
Percent American Indian/Alaskan	Comparison	17	0.5294	0.3529	0.4452020
	Treatment	17	0.1765		
Percent Asian	Comparison	17	1.2353	0.9412	0.1341596
	Treatment	17	0.2941		
Percent Black	Comparison	17	58.5294	-23.4118	0.0445551
	Treatment	17	81.9412		
Percent Hispanic	Comparison	17	35.4118	20.8824	0.0646057
	Treatment	17	14.5294		
Percent Multiple Races	Comparison	17	3.0000	0.8235	0.2134346
	Treatment	17	2.1765		
Percent Native Hawaiian/Pacific Islander	Comparison	17	0.0000	NA	NA
	Treatment	17	0.0000		
Percent White	Comparison	17	1.9412	0.9412	0.3248127
	Treatment	17	1.0000		

* Significant after correcting for False Discovery Rate

Higher mean

Regressions. For the regression models, I used a blocking method, which allowed me to specify different regression approaches for different pieces of the model. Because we are interested in examining the relationship between various school improvement models and achievement, I entered a dummy variable for treatment group (or, in some regressions, model type) into the equation. Furthermore, noting the importance of our covariates, in estimating our regressions I additionally entered baseline achievement data, percent White, and our Index of Disadvantage variables. These variables (treatment group/model type, baseline achievement, percent White, and Index of Disadvantage) were included in all regression models estimated for this study in order to disentangle the effects of the essential supports and policy attributes from those of the model and aforementioned covariates, and they comprise the first block of the regression equation (see Illustration 3 below).

Illustration 3. Regression Equation	
$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 P_1 + \beta_3 W_1 + \beta_4 I_1 + \beta_5 A_1 + \beta_6 B_1 + \beta_7 C_1 + \beta_8 D_1 + \beta_9 E_1 + \beta_{10} F_1 + \beta_{11} G_1 + \beta_{12} H_1 + \beta_{13} J_1 + \beta_{14} K_1 + \varepsilon$	<p>← Block 1</p>
<p> Y_1 : Academic Achievement X_1 : Treatment group P_1 : Prior academic achievement W_1 : Percent White I_1 : Index of Disadvantage $A_1, B_1, C_1, D_1, E_1, F_1, G_1, H_1, J_1, K_1$: Levels of essential supports and policy attributes ε : error term </p>	

For the next block, I entered all the main survey constructs (essential supports and policy attributes) including 10 variables in total: leadership, parent/guardian-community ties, professional capacity, climate, instruction, specificity, consistency, authority, power, and stability. One can quickly deduce that given a sample of only 34 schools, this is a lot of parameters to estimate (14 for regressions considering treatment against all of the comparison group, and 17 if I include model-specific variables). For this reason, for the second block of the analysis I elected to use stepwise regression. Streiner (2013) outlines three instances when one would consider use of stepwise regression: (1) When the ratio of sample size to variables is skewed in favor of the variables and you wish to make generalizations to a population; (2) When one wishes to select a

smaller subset of variables for subsequent use and/or enable a more “pragmatic” interpretation of a phenomenon, noting: “it is far easier to wrap our minds around three or four independent variables than a dozen or so” (p. 130); and (3) To reduce the effects of multicollinearity. Streiner (2013) goes on to argue that the stepwise approach is sensible if our purpose is “predicting how a new group of people [or, in our case, schools] will score on some outcome,” and caution against the use of stepwise regression to determine “which variables explain or predict the dependent variable,” or to “selec[t] the best subset of independent variables” (p. 131). His cautions are aligned with many who have offered harsh critiques of stepwise regression (for example: Thompson, 1995) and advocated against its use in general. Despite some criticism, stepwise regression is widely used to preserve degrees of freedom when testing large numbers of predictors in a small sample (Babyak, 2004) and is also defended as “useful in pruning a long list of possible covariates down to a manageable size” (Leigh, 1988).

For my study, I have multiple goals in estimating regression models. First, I want to be able to use the results from the analysis to make more general statements about school improvement models (instance 1 described above). Second, because of the diagnostic potential of the essential supports and policy attributes, I am practically incentivized to identify the “smallest number of variables which do the job” (Streiner, 2013, p. 131). Doing so could inform the development of policies and programs that target specific supports and attributes for improvement, leveraging them to influence student achievement. Lastly, I am interested in understanding what variables are most closely related to academic achievement. Specifically, I am interested in learning whether or not school turnaround, and particular models of improvement are predictive of achievement and also which, if any, of the essential supports and policy attributes are significant predictors of student achievement. As Streiner (2013) notes, stepwise regression can be appropriate for the first two goals, but could lead to misinterpretation of results for the final goal as the stepwise approach has the potential of crediting a variable with not only its unique variance but also any variance shared with variables left out of the model. This may lead one to incorrectly infer that the variables left out of the model do not explain any of the

observed effect in the outcome variable (Streiner, 2013). I kept this caution in mind when interpreting results.

This study does not purport to be causal, but rather is exploratory in nature and because there is no theoretical or hypothesized basis to presume that certain essential supports or policy attributes should be favored over others, stepwise regression was deemed the most powerful and preferred approach for detecting significant effects and better understanding the relationship among the various predictors. By conducting the regression in two blocks, the first of which controls for model type and the covariates, I was also able to further constrain the probability of mis-assigning variance to predictors. In SPSS, the stepwise approach enters and removes variables into the model based on p-values for the F-test. Variables are entered into the regression in order of ascending p-values—the variable with the largest univariate correlation coefficient is selected first (Leigh, 1988). Variables already in the equation are removed if their p-value becomes larger than 0.05 (the default limit).

MANCOVAs. In addition to regression, I conducted a series of multivariate analyses of covariance (MANCOVAs) with the goal of identifying each school improvement model's strengths and challenges with regard to the essential supports and policy attributes, using these strengths and challenges to define each model. The MANCOVAs additionally allowed me to explore meaningful differences among the models on these variables.

MANCOVAs were run for all dependent variables (achievement, essential supports, and policy attributes) controlling for the effects of prior ELA and math achievement, percent White, and the Index of Disadvantage. A MANCOVA was used because the multivariate approach allows consideration of not only whether or not groups differ on an individual dependent variable (through post-hoc testing) but also, and primarily, a MANCOVA determines whether or not groups differ on a combination of dependent variables. As Huberty & Morris (1989) explain: "The basic MANOVA question is, Are there any overall (interaction, main) effects present?" (p. 304). Multivariate analyses are often recommended when dependent variables are moderately correlated or hypothesized to have relationships that ought to be accounted for (Frost, 2014;

Haase & Ellis, 1987; Laerd Statistics, 2013). They also have an added bonus of protecting against Type 1 errors (Bock, 1975; Haase & Ellis, 1987; Leary & Altmaier, 1980). With 33 dependent variables, our study would have a much greater chance of Type 1 errors were I to use multiple univariate analyses. Results were interpreted using Pillai's Trace test statistics as it is considered the most robust and is preferred in the case of unequal sample sizes (Haase & Ellis, 1987; Olson, 1976).

Furthermore, because of the large number of hypothesis tests conducted (in all, there were 33 variables tested) and the increasing probability of finding a significant difference when there is not in fact one (Kirk, 1982), I adjusted multivariate results for the False Discovery Rate (FDR) using Benjamini and Hochberg's (1995) procedure as an additional step to protect from Type 1 Errors. Results from the follow-up ANCOVAs were only interpreted if the preliminary multivariate analyses indicated statistical significance *after* the adjustment for FDR. Furthermore, please note that results from the follow-up ANCOVAs were adjusted for multiple comparisons using Bonferroni's post-hoc procedure¹⁷, which is recognized as the most conservative approach and is recommended for multiple pairwise comparisons, particularly under sub-optimal conditions such as when groups may be unequal in size (as is the case with this study) or have unequal variances (Dunnett, 1980; Jaccard, Becker, & Wood, 1984; Myers, 1979).

Qualitative analysis. For the qualitative analysis, transcripts of all 30 interviews for my study sample (24 teacher and 6 principal, each lasting approximately 45-60 minutes) were coded and analyzed using NVivo software. All interviews were classified using a pre-interview information sheet that collected background information and key identifiers, for example: experience at the school pre-turnaround, subject(s) taught, and number of years of teaching at the school. These identifiers were used to further categorize the data, allowing me to build complex queries using the NVivo software. Teachers and principals were also able to opt-in to the Shared Solutions Teacher and Principal Advisory Groups using this form; members of these

¹⁷ Note: The Turkey-Kramer modification is the preferred approach for unequal sample sizes (Dunnett, 1980), however, when including covariates in the model, only the Bonferroni and Sidak adjustments are options for post-hoc testing.

groups are targeted for Shared Solutions events and tapped into when the Partnership seeks practitioner feedback on various instruments and activities. For background information sheets and the fieldwork summary template, please see Appendix K. As mentioned previously, the interview protocols can be found in Appendix J.

The qualitative data was analyzed in two phases. During phase one, I analyzed the data for the six schools in my study sample along with data from the additional four schools that were included in the larger Shared Solutions study. Interview transcripts¹⁸ were coded on a rolling basis in the order in which the site visits were conducted. The conceptual framework for the study—the integrative framework for school improvement that combines the five essential supports with the five policy attributes, and study research questions guided this initial coding of the interviews (Weston et al., 2001). All interviews were first deductively coded (Miles, Huberman, & Saldaña, 2014) using the five essential supports and five policy attributes. The purpose of close-coding the interviews using the essential supports and policy attributes was to provide rich descriptions of each school improvement model's key components and strategies for their implementation. This coding served to triangulate survey findings on the relative strength of essential supports and levels of policy attributes present in schools implementing different improvement models.

As I went through the interview transcripts during phase one of coding, I also added more themes to my coding structure by way of inductive (open) coding (Miles et al., 2014). In phase one of analysis, inductive coding was used to capture aspects of teachers' and principals' experiences with school improvement models that were not already accounted for by the conceptual framework. This open coding additionally shed light on success, challenges, and impacts of implementing the schools' improvement models. Codes that emerged during analysis included: capacity building, autonomy, change/adapt, collaboration, communication, resources, responsibility, support, trust, and values/philosophy.

¹⁸ Interviews were transcribed by a reputable, outside organization that has been previously used to generate transcripts for a number of Institute of Education Sciences-funded studies.

During phase two, I drew on the results from the quantitative analysis of survey and academic achievement data to narrow my focus within the qualitative data, considering only parts of interviews coded for the essential supports and policy attributes that were identified as significant in my regression models. To conduct this analysis, I ran queries conditioned on operator (Mastery, Universal, and Promise Academy) and the construct of interest—a particular essential support and/or policy attribute. Next, I inductively coded within these selections to identify themes in the data. Within the targeted areas of the interview transcripts, I used inductive coding to identify themes in the data that could add to my conceptual framework, helping to explain successes and challenges in essential supports and levels of policy attributes. This is aligned with how Thomas (2006) explains the use of inductive coding: “The outcome of an inductive analysis is the development of categories into a model or framework that summarizes the raw data and conveys key themes and processes” (p. 240). The themes that emerged from this more targeted inductive coding provide a deeper understanding of each school improvement model’s key components, strategies for implementation, and unique features that help explain why a particular model does or does not seem to work to improve academic achievement. It is important to note that this phase of analysis is conducted at the operator and not the school level. The purpose of the study is to understand different school improvement models, namely the Mastery, Universal, and Promise Academy models for improvement and *not* to explain an individual school’s approach to improvement. As you will read in the results section, themes were not always consistent across schools implementing the same model. This is an important finding that will be discussed. During all phases of qualitative analysis, I routinely referenced the follow-up summary briefs and reflections written by the interviewers and observers post-fieldwork to further inform my understanding of the schools and teachers’ and principals’ perspectives.

As mentioned earlier, my qualitative analysis draws upon the phenomenological tradition, seeking to understand school improvement from the standpoint of participants, namely teachers and principals. While Flowerday and Schraw (2000) explain that the purpose of phenomenological methodology is “to generate rather than test theory,” in my analysis I strove to

both test the theory proposed by my conceptual framework (by triangulating findings from the quantitative analysis) *and* develop theory to further explain differences among models (by using targeted inductive coding) (p. 634). Overall, my qualitative analysis balanced the value of my conceptual framework with that of the raw interview data, allowing me to deductively test hypotheses about the essential supports and policy attributes generated through the prior quantitative analysis and to also inductively explore emergent themes in the data to shed light on critical factors for improvement not necessarily captured in the quantitative analysis (Amaratunga, Baldry, Sarshar, & Newton, 2002; Emerson, Fretz, & Shaw, 1995). In essence, I effectively analyze the qualitative data in a manner that balances two different goals of qualitative research: the telling of a story (Pratt, 2009) and the triangulation of quantitative findings (Jick, 1979).

In the results section, I use key quotes to illustrate themes in the data (e.g., Thomas, 2006) and also highlight areas where participants' reports diverged (e.g., Eisenhardt, 1989). As Weiss (1994) explains: "It is a matter of common sense to select the quotation that makes the point in as strong a fashion as possible" (p. 191). Pratt (2009) corroborates this, explaining: "Power quotes are the most compelling bits of data you have, the ones that effectively illustrate your points" (p. 860). All teachers were given pseudonyms. Additionally, to distinguish between the two schools within each model, I use "A" and "B" as identifiers.

Results are organized by the conceptual framework and model, with the key findings for the essential supports being presented prior to those for the policy attributes. This structuring of the results is intended to provide readers with a clear picture of each school improvement model's key components as measured by the essential supports prior to moving on to exploring the mechanisms used to facilitate the development and support of these key components (as measured by the policy attributes).

In addition to the analysis for my dissertation study, all qualitative data was used to write case studies for each of the ten schools in the larger Shared Solutions study sample. I developed the template for the case studies, and wrote the first case study for Shared Solutions. These findings were validated by a member check as this flagship case study was reviewed by a

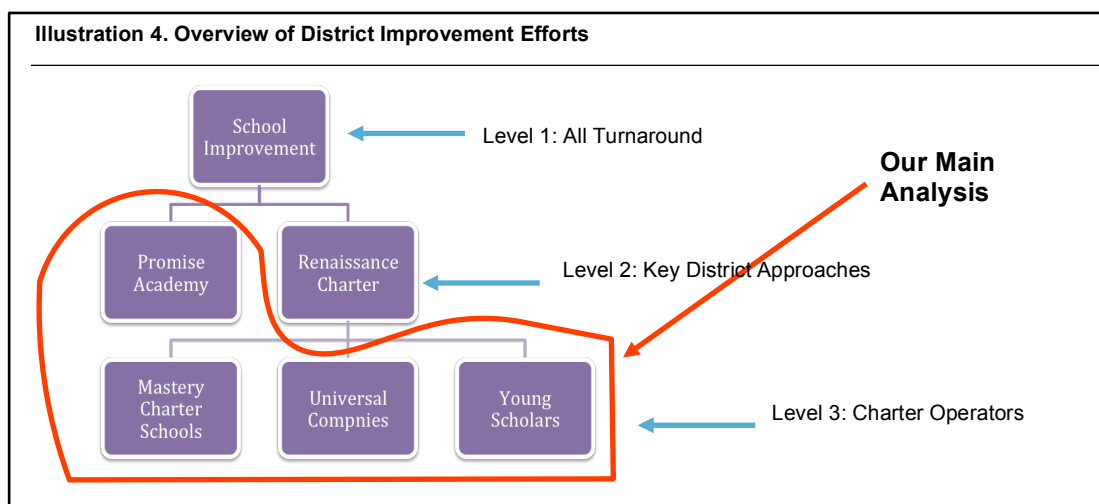
teacher leader from the school for which the case study was written (e.g., Creswell, 2013; Maxwell, 2013). The teacher leader found the case study to be accurate and informative. There are plans underway to disseminate and discuss results of my dissertation and the larger Shared Solutions study with principals and teachers at all schools in the sample in order to confirm findings and additionally facilitate productive use of the data. Our Teacher and Principal Advisory Groups in particular will be targeted for these efforts.

CHAPTER 5: RESULTS

As described in the beginning of this study, over the past six years, federal initiatives have promoted school turnaround as a promising approach to improving achievement in our public school systems (U.S. Department of Education, 2009d). While large urban districts, like Philadelphia, have been implementing federal school improvement models for many years now, research on the effectiveness of school turnarounds has lagged behind and there is no evidence of successful turnarounds at scale (e.g., Peck & Reitzug, 2013). Further complicating research on school turnarounds is the use of the term “turnaround,” which has become a catchall term (Zavadsky, 2012), being used to describe both an overall strategy for improving low-performing schools as well as a very particular U.S. Department of Education-defined approach to improving low-performing schools (U.S. Department of Education, 2009b).

The results presented in this chapter are from a theory-driven evaluation of the School District of Philadelphia’s various turnaround efforts that uses multivariate analyses of covariance (MANCOVAs), linear regression, descriptive statistics, and qualitative interviews to: (a) draw conclusions about the effectiveness of the various models in terms of generating student achievement (Research Question 1), (b) identify defining features of the Mastery, Universal, and Promise Academy approaches to school improvement¹⁹ (Research Question 2), and (c) hypothesize how these defining features relate to student achievement (Research Questions 3 and 4). Due to the structure of the District’s improvement efforts (see Illustration 4 on the following page), preliminary analyses were conducted at three-levels: (1) Full Treatment (*all* improvement models) versus Comparison, (2) Promise Academy versus Renaissance Charter versus Comparison, and (3) Renaissance Charter provider: Mastery Charter School versus Universal Companies versus Young Scholars.

¹⁹ Again, Young Scholars was not included in Shared Solutions’ qualitative analyses, and will not be a focus of this study. This decision was made in Winter 2014 because there was only 1 Young Scholars school in Cohort 1 which prevented us from making within cohort, across school comparisons for the model. In quantitative analyses, Young Scholars was not found to be significantly different from the Comparison Group on any of our measures.



As indicated by the red outline above, my main analysis considered the Promise Academy model alongside Mastery Charter Schools, Universal Companies, and Young Scholars. I will refer to this as an “operator-level” analysis. To lay the foundation for discussing the important findings from this study and underscore the importance of the research decision to conduct and interpret analyses at an operator-level, I will first briefly review the results of the multivariate analyses of covariance (MANCOVAs), which are presented in Table 8 on the following page. These preliminary results lay the foundation for answering my first research question: What is the relationship between the School District of Philadelphia’s various approaches to school turnaround and academic achievement?

As you can in Table 8 on the following page, the full turnaround group (Promise Academies and all Renaissance Charters combined) is not significantly different from the comparison group. Furthermore, multivariate analyses revealed that the two key District approaches to turnaround—Promise Academies and Renaissance Charters—were not significantly different from one another or the comparison group. Were we to simply stop our investigation at this stage, we would have falsely concluded that turnaround schools are not significantly different than schools not selected to engage in turnaround, and that therefore pursuing these District approaches to turnaround is a waste of time. However, mindful of the haphazard use of the term “turnaround” in prior research and wary of making vast generalizations

about reforms defined by nomenclature, carefully built into the design of my study was an awareness of the various Renaissance Charter operators and a hypotheses that despite their classification as a singular approach to improvement, not only might these operators take different approaches to school improvement, but also some of these operators may be more or less effective than others.

Table 8. Initial Multivariate Tests						
Effect		Value	F	Hypothesis df	Error df	Sig.
Turnaround Group v. Comparison Group	Pillai's Trace	.955	0.843	25.000	1.000	.714
	Wilks' Lambda	.045	0.843	25.000	1.000	.714
	Hotelling's Trace	21.070	0.843	25.000	1.000	.714
	Roy's Largest Root	21.070	0.843	25.000	1.000	.714
Promise Academy v. Renaissance Charter v. Comparison Group	Pillai's Trace	1.911	1.788	48.000	4.000	.307
	Wilks' Lambda	.001	1.09	48.000	2.000	.593
	Hotelling's Trace	63.736	0.000	48.000	0.000	
	Roy's Largest Root	50.365	4.197	24.000	2.000	.210

Preliminary descriptives had already suggested that the Renaissance Charter operators varied in terms of implementation and effectiveness, and a multivariate analysis of covariance confirmed that there were statistically significant differences on the dependent variables among the different Renaissance Charter operators. These results posed a challenge: there were significant differences among the charter operators, but on the whole Renaissance Charters were not found to be significantly different from Promise Academies or the comparison group. As the Renaissance Charters each operated and performed in different ways, it seemed imprecise and incorrect to lump them together for an analysis. Instead, I decided the most fitting analysis would

be an “operator-level” analysis that takes into consideration the differences among the three unique Renaissance Charter Operators—Mastery Charter Schools, Universal Companies, and Young Scholars. Because Promise Academies are only operated by the District, it made sense to include them in the operator-level analysis and position analyses to determine whether or not there are differences in key components, implementation strategies, and achievement outcomes among the *four central turnaround operators* in the SDP—The District itself, Mastery Charter Schools, Universal Companies, and Young Scholars.

Consequently, I argue that the question at hand is not as simple as to turnaround or not to turnaround, nor even District-operated or charter-operated turnaround? Rather, I opt to set semantics aside and instead consider each operator (the District, Mastery Charter Schools, Universal Companies, and Young Scholars) independently as what I will refer to as an “improvement model” in my analyses. The fourth and final multivariate analysis (Table 9 below) considered these various improvement models, and found that—as I hypothesized—policy attributes, essential supports, and academic achievement —considered together—are significantly dependent on school improvement model. This confirmation that it is the operator and not the “turnaround” per say that matters serves as the foundation for the results presented in this chapter which paint a very nuanced picture of school turnaround, underscoring the importance of looking beyond nomenclature to appreciate the intricacies of different approaches to school improvement.

Table 9. Multivariate Tests: Operator-level						
Effect		Value	F	Hypothesis df	Error df	Sig.
Mastery v. Universal v. Young Scholars v. Promise Academy v. Comparison Group	Pillai's Trace	3.817	3.803	88.000	16.000	.002
	Wilks' Lambda	.000	4.546	88.000	6.429	.026
	Hotelling's Trace			88.000		
	Roy's Largest Root	1113.372	202.431	22.000	4.000	.000

The remainder of this chapter is divided into three sections that address this study's four research questions:

1. What is the relationship between the School District of Philadelphia's various approaches to school turnaround and academic achievement?
2. To what extent do the essential supports and policy attributes mediate the relationship between school turnaround and academic achievement?
3. What are the key components of the Mastery Charter Schools, Universal Companies, and the Promise Academy models of school improvement as measured by the essential supports?
 - a. How can we describe the implementation of the essential supports using policy attribute theory?
4. How do teachers' and principals' descriptions of their schools' approaches to improvement map on to the essential supports and policy attributes, and help to explain the relative successes and challenges of each school improvement model?

Below are brief descriptions of the following sections which will present the results to the aforementioned questions:

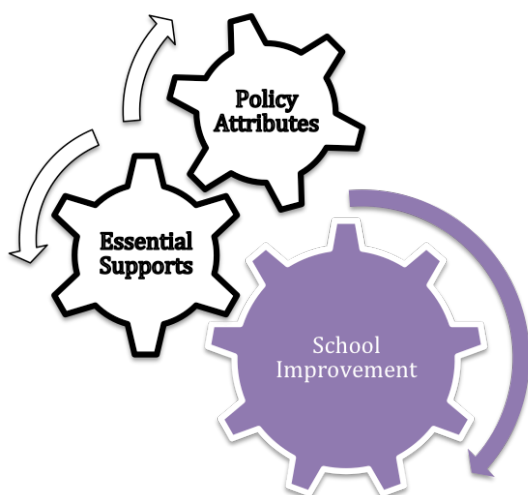
Section 1: Interpreting Main Effects. In this section, I answer Research Questions 1 and 2, identifying the relationships between the School District of Philadelphia's various approaches to school turnaround and academic achievement and also exploring the extent to which the essential supports and policy attributes mediate these relationships;

Section 2: Understanding Key Model Components. In this section, I answer Research Question 3, identifying the key components of the Mastery Charter Schools, Universal Companies, and Promise Academy models of school improvement as measured by the essential supports; and

Section 3: Describing Approaches to Implementation. In this section, I answer Research Question 3a by describing the implementation of key components of school improvement models using policy attribute theory.

While not explicitly addressed by one of the aforementioned sections, findings with regard to Research Question 4 will be woven throughout the second and third sections of this chapter. These sections will draw on teacher and principal interviews, using themes that emerged through my qualitative analysis to provide: (a) rich descriptions of the strength of essential supports and policy attributes within each school improvement model using practitioners' own words, and (b) insight into any additional critical school factors that foster development of these components. Qualitative data will additionally help to explain the relative successes and challenges of each school improvement model.

After presenting the results of this study, I will discuss how we can synthesize this wealth of quantitative and qualitative data and findings to improve research on school turnarounds and identify levers for school improvement.



Interpreting Main Effects: Results from Regression Analyses

The central quantitative analyses for this study included a total of eight separate regressions. As I explained in the beginning of this chapter, MANCOVAs revealed that there are no statistically significant differences between the study's entire treatment group—inclusive of Renaissance Charters and

Promise Academies—and the comparison group. This result informed the specification of regression models conditioned on school improvement model (Promise Academy, Mastery, Universal, and Young Scholars) rather than overall treatment group. However, as you will read in the forthcoming findings, accounting for school improvement model in the stepwise regression equations eliminated the essential supports and policy attributes from the regression models. In other words, after accounting for school improvement model (and covariates), the essential supports and policy attributes did not meet criteria to enter the regression equations. Consequently, to evaluate the relationship between the essential supports, policy attributes, and student achievement, the four central regression models were repeated using a dummy variable for “Treatment Group,” the hypotheses being that if the essential supports and policy attributes effectively capture the school improvement models, then we would not expect them to enter into the regression equation after controlling for school improvement model, whereas, we may expect them enter the equations when we eliminate the model indicators from the equation and instead account only for treatment group. The central findings from these analyses are discussed in detail below.

Finding 1: Only the Mastery model of school improvement is consistently, significantly related to academic achievement, however, there is notable variability in the relationships between other models and academic achievement. On average, regression

models conditioned on school improvement model (controlling for prior academic achievement, percent White, and the Index of Disadvantage) explained approximately 68.4 percent of variation in academic achievement. The R-squared values for the models predicting ELA achievement were consistently higher than those predicting math achievement (see Table 10 at the bottom of this page). This is not surprising given that math achievement tended to be lower for schools regardless of model. Differences in ELA achievement were on average two times the size of differences in math achievement. This finding is particularly notable because as Jacob, Courant, and Ludwig (2003) explain “math performance is believed to be more responsive to school factors than reading performance” (p. 66; see also: Hanushek, Kain, & Rivkin, 2002; Murnane, 1975; Rivkin, Steven, Hanushek, & Kain, 2001). Furthermore, research typically finds more growth in student achievement in mathematics (rather than ELA) on assessments such as the National Assessment of Educational Progress (e.g., Dee and Jacob, 2009; Lee & Reeves, 2002; NCES, 2000). A potential explanation for schools’ higher performance in ELA in this study is the intense focus that the District has placed on ELA achievement. One of the District’s four “Anchor Goals” outlined in Action Plan 3.0 is: “100% of 8-year-olds will read on grade level” (The School District of Philadelphia, 2015a, p. 2); there is no comparable goal for mathematics. If schools are devoting more time and resources to ELA or even simply identifying ELA achievement as a central goal, as is suggested by the District’s focus, then we may expect to see stronger effects in this area.

Table 10. Model Summaries with Improvement Model Indicators		
Outcome	R2	Adjusted R2
ELA Achievement PSSA (Grades 3-5)	0.762	0.679
Math Achievement PSSA (Grades 3-5)	0.489	0.34
ELA Achievement PSSA (All Grades)	0.808	0.756
Math Achievement PSSA (All Grades)	0.678	0.592

Across the board, Mastery was found to be a significant predictor of achievement ($p < .05$). This means that schools being turned around by Mastery Charter Schools were associated with higher levels of student achievement in both ELA and math. Universal was a significant predictor of both ELA and mathematics but only for all grades (three through eight), and not for grades three through five ($p < .05$). Young Scholars was a statistically significant predictor of math achievement for all grades only; and while not significant at the 0.05 level, Promise Academies were consistently associated with lower academic performance. In thinking about these results, I wish to call your attention to three notable facts: 1) All turnaround schools (Mastery, Universal, and Promise Academy) were *performing significantly worse* in ELA and math than the comparison schools prior to undergoing turnaround, 2) There were no significant differences in student populations served (percent White or Index of Disadvantage) for any of the school improvement models from the baseline year to the year of data collection, and 3) On average, schools implementing the Mastery model of improvement served more students than any other model and the comparison group (the Mastery model had the highest average enrollment). These three facts lend credibility to findings that the Mastery model consistently outperformed others, dispelling rumors that Mastery schools now serve a different population and contradicting Bryk et al.'s (2010) finding that small school size plays a key role in school improvement.

Regression models with coefficients are presented below.

$$Y_1 = 114.65 + 34.05M_1 + 5.14U_1 + -12.79Y_1 + -12.02R + 0.452P_1 + 2.17 W_1 + -0.23I_1 + 34.25C_1$$

$$Y_2 = 127.33 + 21.89M_1 + 12.30U_1 + 11.22Y_1 + -6.96R + 3.38P_1 + -1.08 W_1 + 0.53I_1$$

$$Y_3 = 174.33 + 50.97M_1 + 20.86U_1 + 9.13Y_1 + -1.97R + 10.14P_1 + 2.95 W_1 + -0.22I_1$$

$$Y_4 = 127.02 + 28.33M_1 + 26.26U_1 + 19.30Y_1 + -1.81R + 12.86P_1 + 1.56 W_1 + 0.06I_1$$

Key

Y_1 : Grade 3-5 ELA Achievement

Y_2 : Grade 3-5 Math Achievement

Y_3 : All Grades ELA Achievement

Y_4 : All Grades Math Achievement

P_1 : Prior academic achievement

W_1 : Percent White

I_1 : Index of Disadvantage

M_1 : Mastery

U_1 : Universal

Y_1 : Young Scholars

R_1 : Promise Academy

C_1 : Climate

For the sake of simplicity and to minimize redundancies, I will restrict interpretation of the coefficients to ELA achievement for all grades—this was the model with the best fit. The model is repeated below for reference. Full output for all the models can be found in Table 12 on page 97.

$$Y_3 = 174.33 + 50.97M_1 + 20.86U_1 + 9.13Y_1 \pm 1.97R + 10.14P_1 + 2.95 W_1 \pm 0.22I_1$$

As you may recall our achievement outcomes are a composite score that I created by multiplying the percent of students scoring in each state-reported proficiency “band” (below basic, basic, proficient, and advanced) by 1, 2, 3, and 4 (respectively) and then summed to create a total grade-level PSSA score for ELA and Math, separately. The school-level outcome variable was the mean of the scores for all tested grades within a school for which data was available.

Practically, this composite is a little difficult to interpret. The maximum score that a school could receive in ELA achievement is 400 points—this is the score a school would receive if 100 percent of its students in each grade were rated as “Advanced” on the PSSA. If 100 percent of students were rated “Proficient,” a school would score 300 points, and so on. Keep these numbers in mind as a frame of reference as the coefficients for the regression model are interpreted in the following paragraphs, and please note that if I were able to run regressions using mean scaled scores for the outcome variables, I would’ve likely seen larger effects.

To begin, if a school is engaging in Mastery’s school improvement model, it will score approximately 51 points—or 13 percent—higher in ELA achievement ($p=0.000$), holding percent White, Index of Disadvantage, and prior achievement constant. Universal is also outperforming the comparison schools in ELA ($p=0.006$) such that if a school is engaging in Universal’s school improvement model, it will score approximately 21 points—or 5 percent—higher on our ELA outcome variable. While not significant ($p=0.693$), Promise Academies are performing 1.97 points *lower* in ELA achievement as compared to comparison schools. In this model, prior ELA achievement is a significant predictor of current ELA achievement ($p=0.002$), holding all else constant such that a one standard deviation increase in prior ELA achievement is associated with a 10.14 point increase in performance on our outcome variable. Percent White is also a significant predictor ($p=0.009$) such that each one percent increase in percent White is related to a 2.95 point increase in ELA achievement. The directionality of the relationships between different school improvement models and academic achievement (for instance, Mastery is positively associated with academic achievement whereas Promise Academies have a negative association) explains why *on the whole* schools implementing an improvement model are not significantly different than comparison schools.

Robustness check. A concern was raised that lower response rates for certain school improvement models, such as Mastery which averaged a response rate of 30.54 percent, may skew results in their favor. In other words, perhaps the few teachers that took the survey were handpicked with the intention of generating positive responses. To address concerns about

potential biases in the results due to low response rates, I did a robustness check on our analyses by re-running the regressions for *only schools that had a response rate of 50 percent or higher*. Results were found to be robust to response rates: Mastery remained a significant predictor for all outcome variables and Universal remained a significant predictor of the all grade achievement outcomes.²⁰ Again, for a complete list of response rates by school please see Appendix E.

Finding 2: In general, when individual school improvement models are included as predictors, inclusion of the essential supports and policy attributes does not explain additional variance in academic achievement. Somewhat contrary to expectations was the absence of essential supports and policy attributes in the final regression models. Out of the four regressions predicting achievement, in only one instance was one essential support a significant predictor that improved the model fit—Climate for Grade 3-5 ELA achievement ($p=0.032$). For each one point increase in our Climate indicator, there was a corresponding 34.25 point (or 8.6 percent) increase in Grade 3-5 ELA achievement. The lack of any other essential supports and policy attributes in my final models was surprising given the depth of the literature supporting both the essential supports and policy attributes as critical factors in school improvement.

Finding 3: The policy attributes of specificity, authority, and power are significantly related to academic achievement. Hypothesizing that the essential supports and policy attributes may not enter into the final stepwise regressions because the school improvement model predictors, designating Mastery, Universal, Young Scholars, and Promise Academy capture particular supports and attributes so well, I ran the same stepwise regressions again, this time replacing the dummy variables for each school improvement model with a single dummy variable for “Treatment Group.” In these revised regression models, model fit was not as good as when I included indicators for each improvement model (see Table 11 on the following page).

²⁰ Young Scholars did not have any schools with greater than 50 percent response rates so it was excluded from the analysis

On average these regressions explained approximately 50 percent of the variation in our academic achievement outcomes, again with the models fitting better for ELA achievement than for math. In these regressions, Treatment Group was not a significant predictor of

Table 11. Model Summaries with Treatment Group Indicator		
Outcome	R2	Adjusted R2
ELA Achievement PSSA (Grades 3-5)	0.617	0.526
Math Achievement PSSA (Grades 3-5)	0.282	0.144
ELA Achievement PSSA (All Grades)	0.675	0.587
Math Achievement PSSA (All Grades)	0.426	0.324

achievement, however, three policy attributes entered into the regressions as significant predictors of the outcome variables: Specificity (for Grades 3-5 and All Grades ELA achievement), Authority (for all outcomes *except* Grades 3-5 math achievement), and

Power (for Grades 3-5 math achievement and All Grades ELA achievement). Regression equations are presented below. Table 12, on page 97, summarizes the results from all eight regressions.

$$Y_5 = 87.053 + -10.403X_1 + 4.50P_1 + 1.95 W_1 + -0.50I_1 + 52.44A_1 + 29.11S_1$$

$$Y_6 = 99.795 + -0.67X_1 + 1.65P_1 + -1.22 W_1 + 0.46I_1 + 22.32Z_1$$

$$Y_7 = 98.73 + -3.97X_1 + 7.39P_1 + 3.80 W_1 + -0.41I_1 + 27.00A_1 + 28.12S_1 + 18.83Z_1$$

$$Y_8 = 96.51 + 0.44X_1 + 7.78P_1 + 1.68 W_1 + -0.27\Box_1 + 27.19A_1$$

Key

Y_5 : Grade 3-5 ELA Achievement

Y_6 : Grade 3-5 Math Achievement;

Y_7 : All Grades ELA Achievement

Y_8 : All Grades Math Achievement

P_1 : Prior academic achievement

W_1 : Percent White

I_1 : Index of Disadvantage

X_1 : Treatment Group

A_1 : Authority

S_1 : Specificity

Z_1 : Power

Again, for the sake of simplicity and to minimize redundancies, I will restrict interpretation of the coefficients to ELA achievement for All Grades—this was the model with the best fit and the one that included the three policy attributes as significant predictors of achievement. The model is repeated below for reference.

$$Y_7 = 98.73 + -3.97X_1 + 7.39P_1 + 3.80 W_1 + -0.41I_1 + 27.00A_1 + 28.12S_1 + 18.83Z_1$$

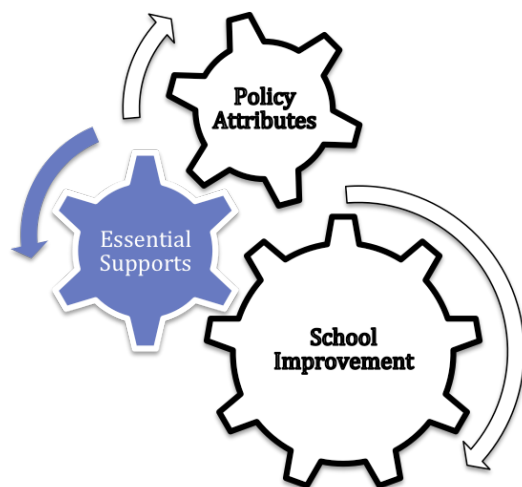
Of the three policy attributes that entered into the equation, Specificity was associated with the largest improvement in achievement such that a one point increase in Specificity is associated with a 28.12 point (approximately 7 percent) increase in ELA achievement ($p=0.022$). Similarly, a one point increase in Authority is associated with a 27 point (6.75 percent) increase in ELA achievement ($p=0.011$). Power was found to be a significant predictor at the 0.10 level ($p=0.065$) such that a one point increase in Power is associated with an 18.83 point (4.7 percent) increase in ELA achievement. It is notable that none of the essential supports met criteria to enter into the final models. This regression also identifies prior ELA achievement as a slightly significant predictor of current ELA achievement ($p=.079$), holding all else constant such that a one standard deviation increase in prior ELA achievement is associated with a 7.39 point increase in performance on the ELA achievement outcome variable. Lastly, percent White is also a significant predictor ($p=0.007$) such that each one percent increase in percent White is related to a 3.80 point increase in ELA achievement.

Outcome	Approach	R2	Adjusted R2	Treatment Group			Controlling For				Key Predictors												
				Mastery	Universal	Young Scholars	Promise Academy	Percent White	Index of Disadvantage	ELA Baseline	Math Baseline	Leadership	Parent/Guardian-Community Ties	Professional Capacity	Climate	Instruction	Specificity	Consistency	Authority	Power	Stability		
ELA Achievement PSSA (Grades 3-5)	With Treatment Group	0.617	0.526	-10.403				1.742	1.946	4.995	NA		x	x	x		x		29.109*	x	52.441*	x	x
	With Models	0.762	0.679	34.052*	5.144	-12.789	-12.021*	2.169	-0.226	0.452	NA		x	x	x		34.245*	x	x	x	x	x	x
Math Achievement PSSA (Grades 3-5)	With Treatment Group	0.282	0.144	-0.676				-1.215	0.461	NA	1.653		x	x	x	x	x		x	x		22.322*	x
	With Models	0.489	0.340	21.894*	12.295	11.224	-6.961	-1.076	0.532*	NA	3.383		x	x	x	x	x	x	x	x	x	x	x
ELA Achievement PSSA (All Grades)	With Treatment Group	0.675	0.587	-3.974				3.975*	-0.414	0.079*	NA		x	x	x	x	x		28.123*	x	27.009*	18.834*	x
	With Models	0.808	0.756	50.968*	20.863*	9.130	-1.973	2.952*	-0.222	10.142*	NA		x	x	x	x	x	x	x	x	x	x	x
Math Achievement PSSA (All Grades)	With Treatment Group	0.426	0.324	0.437				1.675	-0.274	NA	7.778*		x	x	x	x	x		x	x	27.190*	x	x
	With Models	0.678	0.592	28.327*	26.261*	19.302*	-1.813	1.560	0.061	NA	12.863*		x	x	x	x	x	x	x	x	x	x	x
Key																							
	* sig at .05 * sig at .1 x excluded from model																						

Pulling it all together: The relationships among school improvement models, essential supports, and policy attributes. The purpose of the integrative framework for school improvement outlined in Chapter 3 is to unpack the notion of a “successful” school by profiling school improvement models using the essential supports and policy attributes. By understanding not only what a school is doing (essential supports) but also how it is doing it (policy attributes), I believe researchers and practitioners will be better equipped to identify levers for improving all schools. Because the essential supports and policy attributes drop out of the regression models when we include indicators for the individual school improvement models, I hypothesize that these features effectively capture the essence of a school’s approach to improvement. Furthermore, thinking about how the stepwise approach to regression works, it is also a possibility that the model indicators are more effective at explaining variance in our outcomes because they encapsulate the variance explained by each school’s unique combination of the essential supports and policy attributes. It is also possible that the model indicators capture the effects of model components not directly measured by the essential supports and policy attributes—a possibility that will be explored further in my qualitative analyses.

These results will be discussed further in the following sections on Understanding Key Model Components and Describing Approaches to Improvement. The critical finding from these regression analyses to carry forward is that Mastery (and in a few analyses, Universal), Specificity, Authority, and Power were identified as significant predictor of achievement and as having positive relationships with achievement. In the next two sections, interview data will be used to contextualize the results from the regressions and MANCOVAs, facilitating a detailed understanding of each model’s approach to school improvement. Knowledge about each model’s theory of action for generating improved student achievement will help me to contextualize the results of the pooled analysis of the impact of school turnaround on the essential supports, policy attributes, and student achievement and help me to hypothesize which paths in my conceptual model make a difference for which turnaround model(s) and why.

Understanding Key Model Components



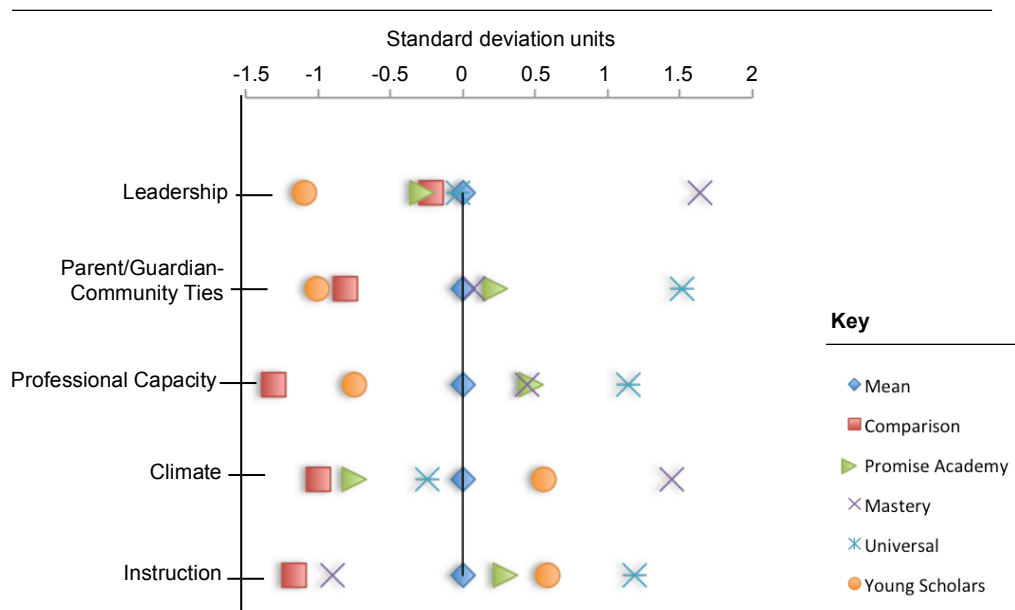
The results from the regression models provide us with a great starting point for thinking about what features (essential supports and policy attributes) are possessed by the more successful models of school improvement. In this section, I will first use descriptives and results from a MANCOVA to provide an

overview of each school improvement model in terms of the essential supports. Then, I will contextualize these results through the use of interview data, profiling each improvement model's key components and suggesting themes that may help explain the relative strength of these components. The purposeful integration of interview data with quantitative results is intended to provide rich descriptions of the various school improvement models in this study that will help us to better understand the results of the regression analyses and begin conceptualizing practical applications of our findings.

How do the improvement models vary on the essential supports? Illustration 5 on the following page presents plots of the models' standardized scores for each of the five essential supports, displaying the overall mean to give readers an idea of the distribution of the different school improvement models' levels of the essential supports. Noting that the five essential supports have all been previously linked to improvements in student achievement, we can interpret the results presented as areas of relative strength and weakness. For instance, we can see very clearly that the Mastery model is above average, and stronger, than the others on Leadership and Climate. Universal's school improvement model takes the lead in Parent/Guardian-Community Ties, Professional Capacity, and Instruction. Comparison schools tend to fall toward the lower end of the spectrum, and Promise Academies tend to score closer to the group mean. Young Scholars' scores vary dramatically by support with scores in Leadership,

Parent/Guardian-Community Ties, and Professional Capacity falling below the group mean and scores in Climate and Instruction above. The black line through the blue diamonds in the center of the chart highlights the overall group averages for each of the essential supports.

Illustration 5. Standardized Scores for Essential Supports



The precise mean differences among the school improvement models for the essential supports are presented in Table 13 on the following page. As explained in Chapter 4, these comparisons are the results of a MANCOVA analysis that controlled for prior achievement, percent White, and the Index of Disadvantage. A Bonferonni adjustment was made for multiple comparisons (the original multivariate test statistics were adjusted for the False Discovery Rate). Statistically significant results are shaded in light blue. As evidenced below, the only significant difference in means is for Climate, for which Mastery is rated significantly higher than comparison schools and Promise Academies ($p < 0.05$). The survey constructs that evaluated levels of the five essential supports were designed with sub-constructs that allow us to dig deeper and see if there is any sub-component of a support, for instance, Climate, which is driving differences at the construct-level. Two sub-constructs were found to be significantly higher for Mastery than for comparison schools and Promise Academies: Respect (within Climate) and Professional

Development: Active learning (within Professional Capacity). For these results, please see Table 14 on page 102. As the “Respect” sub-construct was the only significant difference across models within the Climate construct (the only construct with significant differences across models), I hypothesize that this sub-construct was the major driver of Mastery’s strength in the area of Climate. As I will discuss later, interview data supports this hypothesis. In the tables below, the mean difference (I-J) is equivalent to the mean of group “I” in column two minus the mean of group “J” in column three. For example, you can see in the first highlighted row that Mastery’s mean score on Climate is 0.383 points higher than that of the comparison schools.

Table 13. Essential Supports Mean Differences at the Construct Level					
Dependent Variable	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.
Leadership	Mastery	Comparison	.565	.210	.135
		Universal	.366	.235	1.000
		Young Scholars	.522	.262	.584
		Promise Academy	.514	.186	.115
Parent/Guardian-Community Ties	Universal	Comparison	.392	.204	.682
		Mastery	.293	.180	1.000
		Young Scholars	.584	.214	.122
		Promise Academy	.214	.169	1.000
Professional Capacity	Mastery	Comparison	.174	.136	1.000
		Universal	.012	.152	1.000
		Young Scholars	.127	.169	1.000
		Promise Academy	.045	.120	1.000
	Universal	Comparison	.163	.172	1.000
		Mastery	-.012	.152	1.000
		Young Scholars	.116	.180	1.000
		Promise Academy	.034	.143	1.000
Climate	Mastery	Comparison	.383 [*]	.105	.014
		Universal	.212	.117	.844
		Young Scholars	.083	.130	1.000
		Promise Academy	.297 [*]	.093	.041
Instruction	Comparison	Mastery	-.001	.114	1.000
		Universal	-.129	.145	1.000
		Young Scholars	-.090	.152	1.000
		Promise Academy	-.059	.094	1.000

Table 14. Essential Supports Mean Differences at the Sub-Construct Level

Dependent Variable		(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.
Professional Capacity – Professional Development: Active Learning	Mastery	Comparison		.572 [*]	.138	.004
		Universal		.414	.155	.139
		Young Scholars		.322	.172	.747
		Promise Academy		.461 [*]	.123	.011
Climate – Respect	Mastery	Comparison		.391 [*]	.081	.001
		Universal		.217	.091	.258
		Young Scholars		.286	.101	.094
		Promise Academy		.324 [*]	.072	.002

In their own words, how do teachers and principals describe the essential supports at their schools? While the MANCOVAs shed light on which of the mean differences in essential supports are significant among models, it is important to underscore the difference between statistical and practical significance. Other than Climate, there were no significant differences among the different improvement models in terms of the five essential supports, however, I believe there is still a practical use for the extensive qualitative data on the essential supports. The purpose of this section is *not* to make comparisons across models with regard to the essential supports but rather to provide readers with a general idea of what these different models look like in practice. I use the approach of defining each school improvement model in terms of its relative strengths, using survey results to triangulate interview data. Absent significant differences, focusing on the models' relative strengths, as identified using the standardized means displayed in Illustration 5 (page 100) as well as preliminary qualitative analyses, will allow me to distill the extensive qualitative data for each model down into a digestible and useful summary for readers that will set the stage for the discussion of the policy attributes which were found to vary significantly across models. I also identify key themes that cut across these areas of strength, further speaking to the true “essence” of each school improvement model.

Exploring how principals and teachers describe their school's approach to improvement in terms of the essential supports, bolsters quantitative findings that speak to identifying the key components of Mastery Charter Schools, Universal Companies, and the Promise Academy models of school improvement as measured by the essential supports (Research Question 3) and additionally directly answers Research Question 4, providing insights into the relative success and challenges of each school improvement model.

Mastery Charter Schools: Relationships and adaptability. As evidenced in Illustration 5 on page 100, Mastery is leading the school improvement models in Leadership and Climate. Clear and high expectations, order, and the consistent communication of a Mastery vision and approach emerged from the data as hallmarks of the Mastery model. Teachers described school leadership as being “very clear cut” (Kylie, Mastery School A) and “very vocal about the vision and the direction that the school is going in” (Ryan, Mastery School B). As one teacher explained:

...[the principal is] very stringent when it comes to making sure that expectations are being held within the classroom, making sure that we are implementing restorative practices when it comes to our students, and just overall, making sure that the functioning of our school is united, making sure that we are understanding the school vision. (Adele, Mastery School A)

At both Mastery schools, teachers described their leaders as direct and consistent in terms of their expectations. As one teacher put it:

Nothing's ever a surprise. So I appreciate the openness, the feedback, the open doors, the you know just put it out there, you tell me what's going on, you know nothing seems shady or A-ha I got you, or anything like that like it's a, everything is clicked. (Ryan, Mastery School B)

In addition to speaking to the clear expectations communicated by school leadership, the quote above, with its mention of openness and feedback hints at a larger theme that emerged from the data on Leadership at Mastery: a deep respect for staff and appreciation of the “human” aspect of education. Donna, a teacher at Mastery School B, spoke to the quality of leadership-teacher relationships, explaining:

She [the principal] is every morning outside with us for our school assembly every morning, excuse me, on morning assembly. If you need her all you have to do is text her, call her, she comes to you, she, she really has your back. I just had a meeting on Friday with a parent who was unhappy and I didn't know what was going to coming back from the meeting, but she really, like I, she really had my back. Like I sat there and I, like after

the meeting and I was thank you so much, like cause I didn't, it could have turned any which way possible, but listening to her like talk about me and I just sat there and I was like thank you so much. Like she really is very genuine and she's personable. Like she gets it that we're human, I'm the mother, she gets how I feel about having a four year old starting school next year and all of that stuff. So yeah, that's, she's amazing.

The connection Donna described with her principal was not unique. Adele, a teacher at Mastery School A, offered a similar portrait of leadership's relationship with teachers, stating:

I think it's so important when it comes to leadership that they're human, they're actually trying to connect to you on a personal level, because there's so many outliers outside of the classroom that affect our working, our working habits, or something that might be particularly happening during the day. So they're very, they're able to connect us, which I think is really meaningful.

Across both Mastery schools, teachers noted that they felt respected by leadership, that their feedback and opinions were valued, and that leadership was open to communication. The Mastery principals also spoke to respect and the human aspect of education as they described Mastery's emphasis on the importance of developing and supporting school staff. One principal explained:

I'm acutely aware of like I need every single person here you know and I also believe that their success is a reflection of me and so if they are not good at what they do then I am not good at what I do and so I, I'm the type of person that it's just I tie myself to somebody so like you know if I have an A.P. [assistant principal] who's floundering, I like purposely you know like handcuff myself to that person and, and you know work super hard to build trust and you know make them feel like I'm incredibly loyal to them.
(Principal, Mastery School A)

The themes of respect and the humanizing of school improvement transcended conversations about leadership to characterize Mastery's approach to Climate. Of particular note was talk about the launch of Mastery 3.0 or "the pivot" at Mastery School A. Mastery 3.0 is an operator-wide shift in approach to instruction and school climate which one teacher described as being in "full gear" during the 2014-2015 school year (Kylie, Mastery School A). The pivot is emblematic of a major adaptation in the Mastery model. In talking about the pivot, teachers emphasized the shift away from the rigidity of Mastery 2.0's "strict...like no excuses type of model" (Taylor, Mastery School A) toward a more teacher-described, "holistic" (Kylie, Mastery School A) as well as "organic and genuine" (Adele, Mastery School A) approach to maintaining a

positive school climate. One teacher offered a direct comparison of Mastery's old and new approaches to Climate, explaining:

I feel like Mastery 2.0 before would have been like your head is down. First check. Right, instead of saying: "What's wrong? What's on your mind?" Mastery 2.0 would have been: "Well, why are you sitting like that?" Using the why's instead of the what's and who's affecting you, etcetera, keeping trauma in mind. That has been so helpful when it comes to learning environment. (Adele, Mastery School A)

Whereas Mastery's original approach to climate was more punitive and relied on merit and demerit systems as well as other consequences for bad behavior, Mastery 3.0 places an

"All 3.0 means is common sense, we're gonna be logical and flexible and treat kids like we would want our own children treated."

—Principal, Mastery School A

emphasis on restorative practices, which involve teachers engaging with students around issues of behavior and conflict in a more personal manner. One teacher explained that

the new approach to climate is really "taking into consideration the kids are human," and noted that this approach also helped students to recognize that "my teachers are people too and they have feelings and when I do this it has this effect" (Taylor, Mastery School A). She described this as being "pretty powerful" (Taylor, Mastery School A). As a result of this shift in approach to school climate, teachers believe "the students feel more cared for" (Kylie, Mastery School A). One teacher, Kylie, described the shift as:

Trying to be, you know be more holistic and it's like yes it's about their academic achievement but at the same time it's about their like social emotional growth and I think really trying to focus on that has really made the school culture and climate very, you feel more like a family as opposed to kinda like a mini military school. (Kylie, Mastery School A)

It is of note that teachers at Mastery School A consistently referenced the pivot or shift, whereas teachers at Mastery School B described similar changes in instruction and climate, such as an increased emphasis on restorative practices and building relationships with students without necessarily attributing them to a specific policy shift. This finding may be explained by the fact that Mastery School A was the first school to pilot "the pivot" (Principal, Mastery School A), and therefore teachers have had more time to implement and become familiar with the language.

Teachers at Mastery School B still noted the presence of a merit/demerit system (associated with Mastery 2.0), further demonstrating that implementation of “the pivot” is at varying stages within Mastery schools. While the language of Mastery 3.0 was largely (though not completely) missing from Mastery School B, the key attributes of the shift described by teachers at Mastery School A were also described by teachers at Mastery School B. For example, teachers at Mastery School B made similar observations about Mastery’s school climate and emphasis on relationship building. As one teacher explained: “our students feel loved, they feel cared for” (Ryan, Mastery School B).

Across the board Climate and relationships were identified as central to Mastery’s success. This finding corroborates the results of the MANCOVA discussed earlier in this section.

As one teacher explained:

Kids have to want to be here for anything to work, they have to want to be here. They have to look at this place as a safe haven and they have to look at the teachers as if they already know that these teachers care about them, they have to feel loved, they have to feel respected, they have to want to be here. Like at the end of the day I have a handful of students who just don’t go home. And while I’m pushing them out the door like “go home,” I love the fact that they want to be here. So I think that [climate] part it stands out because once you have that the you’re able to teach them anything, you know. (Ryan, Mastery School B)

Universal Companies: Parent/guardian engagement & collaboration. While Universal Companies leads the pack in Parent/Guardian-Community Ties and Professional Capacity, scoring the highest of all improvement models on these constructs, there were vast inconsistencies in teachers’ reports about these constructs both within and across schools. Teacher and principal reports about these two essential supports varied on the whole and tended toward being more critical of the model in that teachers were quick to identify areas for improvement. There were, however, a few bright spots of the Universal model that transcended interviewees and schools: outreach and opportunities for involvement (parent/guardian engagement) and collaboration.

Universal is stereotyped as the more community- and family-centered model for improvement. The Family and Student Resource Center (FSRC), which is the hub for many of the schools’ activities is “at its core a Universal program” (Principal, Universal School A). However, as

noted by this same principal as well as teachers at both schools, the vision for parent/guardian involvement and its strength varies from school to school. For example, at one school a teacher explained: “I think that it’s not the highest priority, but I do think it’s a priority” (Arielle, Universal School A). Conversely, at another Universal School, a teacher described a culture of parental engagement that permeated the school:

We communicate to our parents that we need them to support us also for the school so it will happen. So we describe it as it takes a village to raise a child. That’s our motto here. So the parents understand that, you know, this is part of the vision. It’s here in the hallway. Yes, it’s listed everywhere. I know it’s a mandate, but do you understand what it says, what it means? So, it means you come in, walk your child in in the morning. You come in the classroom, help with a science project and it’s not a big day where it’s like a festival or something. You know, you just come on in any other day. (Brianna, Universal School B)

Another teacher echoed this sentiment, explaining:

[T]hat’s one thing I like about the school it’s not just about the education, it’s about the community overall and kinda like building citizens and in, in, not, not just in school but outside of school and this is why we do so many things like visiting homes and things like that. So as far as a vision for the school we, I think we uphold that here and we involve our community a lot in our building and with the, they do a plethora of things ... just making sure that school and community, education and community is not a separate entity but built up together. (Nicole, Universal School B)

This language about community building and citizenship was not evidenced in conversations with teachers at Universal School A, underscoring the variation across schools, within the model.

Another source of inconsistency in the data was teacher reports on parent/guardian-involvement which spanned the spectrum from “I’ve never had any parents that want to do anything” (Jim, Universal School A) to “I really like the families here, you know all of the families are very, you know want their child to get a great education and they’re very you know involved” (Fran, Universal School A). Regardless of perceptions about how involved parents/guardians are at the school, teachers and principals all spoke to the number and diversity of school outreach activities available at their schools. School communications home include: regular newsletters and phone calls, daily reports for students in grades K-3, and use of the Class Dojo application to provide upper grade students with real-time information about academics and behavior. Other opportunities for parent/guardian involvement include an open door policy (parents/guardians can come to the school and FSRC at any time during school hours), monthly parent engagement

initiatives, winter concerts, town halls, student showcases, turkey giveaways, sneaker collections, Donuts with Dads, flea markets, and workshops on everything from nutrition and brain development to sexual trauma and grief counseling.

Despite a diversity of outreach and engagement activities, what stood out the most in the data about Parent/Guardian-Community Ties at Universal was a recognition of the schools' room for improvement in terms of engaging with parents/guardians. As one teacher remarked:

Like how do you get your back to school night to be so packed that cars are parked in the farm field and the principal decided to break back to school night into three nights? Like that's something that I would love to see happen, but I don't know how they. I don't. (Jim, Universal School A)

The principal of Universal School A noted that at her school it has been a "struggle" to engage parents, but that they "are looking into strategies, projects, programs that might move those parents and to view the school as the first step to students living what we would consider a successful life." Similarly, at Universal School B, the principal noted the challenge of "getting them [parents] in," alongside a successful strategy of capitalizing on the activities parents do show up for to share important academic information. The principal elaborated on this strategy:

Now they'll come for a trip and that's the thing we have to be very creative now, so I tell my whole school, on trip days do your own school meeting, give out the information, give the calendars out, so this morning I'm like, here get the parents the, the June calendar, make sure they get this summer school program and we have Summer Acceleration Academy, give those out. Some parents say they already have it, others were like, I didn't see this, we're like oh it's been here, here take this, take it home you know. So it works, we ha-, however, when they come in we just have to give them all the information that we need them to have you know. (Principal, Universal School B)

The progress that Universal has made with parental engagement does not go unnoticed but as one teacher explained:

[T]he one area that I would love to see get better is our parental involvement, you know but I'm, what we're doing is an effort but you know we always have to brainstorm new ideas because as time changes it's just, it gets harder and harder to get the parents in the door. (Nicole, Universal School B)

A teacher at Universal School A echoed this sentiment, noting:

You know, we still have there are issues, but I think parents are more willing to help out now. I mean we have parent volunteers that we never used to have, and I think they, there's a little more trust than there used to be. (Leo, Universal School A)

When it came to Professional Capacity, teachers tended to present conflicting information about the quality of professional development and evaluations, however, collaboration was

“[W]e really are a very caring staff, that we’re here for the right reasons, as in most schools we still have a lot of growing to do and a lot of improvements to make, but I think that we are on the right path to do so and we have plans in place to get our students to where they need to be in order to be successful members of the community.”

—Jane, Universal School B Teacher

our grade would just be K and then 1. So we meet twice a week and then our grade groups meet twice, twice a week. And then the whole school, we meet in a staff meeting on Fridays and maybe every other Friday. So we have grade zero time to meet and then during our prep time, which is now, the kids go to special so we collaborate with lesson planning, whatever target skills and strategies we need to work on. (Brianna, Universal School B)

consistently noted as a feature of the Universal model. Teachers and principals both described multiple times during the week that were specifically designated for collaboration—at the grade and school level—including a zero period, common planning times, and faculty meetings. One teacher explained:

We meet, we have zero period within our grade so, and I say grade, grade group. Grade group would be like K-3, but within

Another teacher remarked on the number of opportunities to collaborate, saying: “We’re encouraged to collaborate. I think that’s why we do so many of these meetings is they want us to collaborate” (Leo, Universal School A). A third teacher echoed this sentiment, explaining:

...collaboration is never short or a problem, we are always able to meet even if for say some reason we may have a, like a, I don’t know maybe a meeting needed to be rescheduled or we couldn’t have that meeting that morning, I never feel like I don’t have time to collaborate with my time, that’s one thing I always feel like we get done. (Nicole, Universal School B)

It is worth noting that not all teachers felt there was adequate time for collaboration, in fact one remarked:

I just feel like it’s not time because there’s so much other things to do that it’s not enough time for me to meet with my grade team. Now when we do that that time to meet it’s usually during professional development. (Sam, Universal, School B)

Something notable about the collaboration at Universal is what a teacher referred to as “cross-collaboration” (Leo, Universal School A) and a principal termed “vertical collaboration” (Principal,

Universal School A). The majority of teachers at Universal referenced this type of collaboration during interviews. This type of collaboration was specifically built into Universal School A, but also occurred informally at the other Universal school. The principal of Universal School A explained that the intention of the vertical collaboration is to provide a space for teachers who teach the same subject to “bounce off each other’s strategies and practices that they’re doing in their classroom.” A teacher at this principal’s school described the approach as follows:

I’ve been working very closely with the 4th and 5th grade math teachers, just okay, my kids are struggling with this. How would you teach it, or how did you teach it? Or okay, so I need a project. What would you give me? Like I, getting ideas from each other. (Arielle, Universal School A)

In addition to sharing strategies and practices, the principal of Universal School A noted another benefit of vertical collaboration: “getting teachers to really think, broaden their horizon from what I do on my grade level to what happens across the board makes the instructional program very successful.” The principal elucidated:

... I have 3rd and 5th meeting together. ... And then the flip side, 3rd grade, I want you to begin to think of your students as 5th graders. And so what do you do to make that; because we can’t wait until the end of 4th grade to say, oh, we gotta fill the skills gap before they get to 5th grade. We have to do the work on the front end at 3rd grade and so Ms. Brown who’s the 3rd grade literacy teacher talked about you know I really need to meet with the K-1, 2 teachers cause I need to emphasize to them here’s some things that need to happen in K, 1, and 2 to help them be successful in 3rd grade. (Principal, Universal School A)

While not formalized, this vertical collaboration was also discussed at the other Universal school.

As one teacher explained:

[F]or example I’m the 5th grade math teacher, I will always go seek out the 6th grade math teacher, matter of fact we just exchanged resources course the content is so closely linked and with my 5th graders transitioning up I talk to her a lot to see what and how I can connect the content to their next step. (Nicole, Universal School B)

Promise Academies: Collaboration & a shared vision for academic excellence. As evidenced by my quantitative analysis, the Promise Academy model is the only one that was consistently (though not significantly) negatively related to academic achievement. Consequently, it is not a surprise that even when restricting my focus to the Promise Academies’ relative areas of strength—Professional Capacity and Instruction, there were vast inconsistencies in teachers’

reports within and across schools using the Promise Academy model. Instability—in terms of teacher turnover and teacher absences and also repeated references to things “we used to have” (prior to budget cuts) permeated conversations. Nevertheless, there were positives that arose in conversations about the model’s approach to Professional Capacity and Instruction, namely collaboration and a shared vision for academic excellence.

Principals and teachers alike at Promise Academies spoke about the strong presence of collaboration in their schools. The exact form and relative strength of collaboration varied by grade and school—some teachers described daily opportunities embedded within the schedule to meet and collaborate, others referenced weekly opportunities, and a few mentioned no time at all to collaborate and expressed a desire for more opportunities. It seemed that while it did not always pan out, the intention at the Promise Academies is to have common time in the schedule at least weekly, and perhaps even daily, for teachers to collaborate, particularly around issues of instruction. At one school, a teacher spoke about the benefits of having a common prep time:

So that’s awesome because my whole time on our prep time we’re able to come together to collaborate in reference to activities that we’re doing with our students. If a student is missing out of a class, we can talk about, well, what happened to this child. So we are able to come together to discuss common concerns, be it behavioral or academic. (Josie, Promise Academy A)

Another teacher explained: “[t]here’s not always specific co-planning time but we all kind of just make the time” (Darcy, Promise Academy B). In general, the professional culture described to

“There’s great communication between staff. That’s one thing I love about [the school] is it’s like a family so everyone will help you, everyone is always willing to help and everyone kinda is understanding what is going on.”

—Sophie, Promise Academy School B
Teacher

interviewers was collaborative—there were informal systems in place to allow students from other grades into your classroom to accommodate for absent teachers, and teachers were accustomed to covering for others’ classes during their prep periods. Aside from logistically collaborating,

teachers at Promise Academies described collaboration as facilitating a system of support: “The support system here is amazing like with regards to behavior and enrichment and intervention.

Everyone kinda just helps out each other which, you know, is really very helpful” (Maxine, Promise Academy B). Another teacher emphasized the benefit of having such a collaborative culture:

I would say the work, for me, it's the working relationships, only with, like, the people, the K to 2 team. Like, I feel like I'm very, you know, I always go to them, I ask them what they want, in 1st grade, what do they need to know? Like how can I make this onto a 1st grade level? I feel like I do that myself, though, like I collaborate myself. I make it a point to do it, you know. So I feel like that is, for me, a success. (Cindy, Promise Academy A)

In talking about instruction at the school, teachers and principals mentioned the Common Core, differentiation, small group instruction, classroom autonomy, and guided reading to varying extents. The theme that consistently cut across interviews was a deep understanding that instruction, above all, is the priority. As one teacher put it “that’s [instruction] the most important reason that we’re here, you know, is the students’ education” (Josie, Promise Academy A). The principal of Promise Academy A explained:

...to me, everything evolves around, revolves around instruction. To make sure that our children, that’s what we’re getting paid to do is to teach children. And if I don’t have that going on, then there’s a problem. And then I have to figure out, then all these other little factors come into play as to why this is not being successful. That’s what I feel.

The principal of Promise Academy B shared a similar sentiment:

I would say instruction is, is the focus because after we get him to sit down, after we get the children to behave and be mannerly and everything else if there’s instruction’s there still is not rigorous and standards are aligned and developmentally appropriate and all of those things then the climate piece will be, it will go back down.

In speaking about the focus on instruction and academic expectations, one teacher noted that despite having students with varying levels of ability, expectations are set high, explaining:

We have students of great varying ability levels among all grade levels so that is definitely a challenge in instruction but I think that most of the teachers here really believe in meeting the child where they are and then pushing them above where they came into them. So I really do think most of the teachers here do set incredibly high standards for their kids. No matter what the, no matter what ability level they come into their classroom at. (Darcy, Promise Academy B)

A school-based teacher leader from the other Promise Academy echoed this sentiment, highlighting the staff’s shared belief that all students *will learn*:

Well, it’s [academic expectations] in our vision, it’s in our mission, and I think it’s something that is very doable. And it’s, and it’s not so much can learn, it’s will learn. You

know do you think all students can learn? It's not can learn, it's will. All students will learn. All students may not learn at the same rate, at the same level, but all students will progress from September to June. That's what I firmly believe and that's what I try and communicate with teachers whenever they ask me something. (Hannah, Promise Academy A)

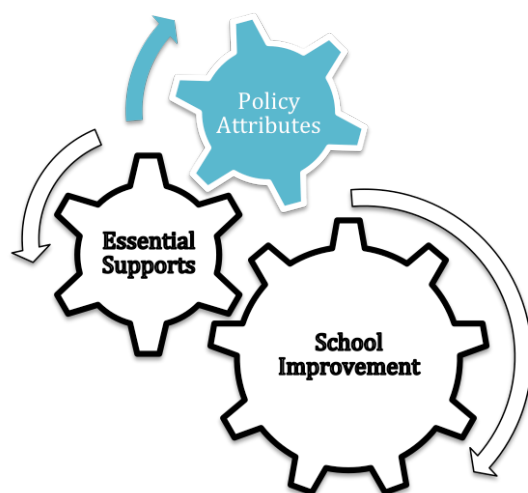
Recap. In thinking about the key components of each school improvement model as described by the principals and teachers implementing the models, the strongest theme that emerged from the qualitative data was the consistency, or lack of consistency, in how principals and teachers described these key components. In fact, thinking *only* about the consistency of interviewees' descriptions of the strongest essential supports for their school's improvement model provides great insight into why some models are outperforming others. For the Universal and Promise Academy models of improvement, there were vast inconsistencies in teachers' and principals' descriptions of the models. The lack of corroboration amongst the interviewees within and across schools suggests that these models are not as "strong" or clear cut. The lack of an identifiable model may explain why we see relatively weaker (and in the case of Promise Academies, negative) relationships between these models and academic achievement. Given the inconsistencies in reports from teachers and principals at Universal and Promise Academy schools, I would interpret any themes that emerged, other than inconsistency, with caution.

For the Mastery model of improvement, there was strong consistency within and across schools in teachers' and principals' descriptions of their schools' approaches to Leadership and Climate. The similarity in language used to describe these essential supports lends credibility to the theme of relationship-building that emerged from the data, suggesting that perhaps it is the relationship-building aspects of the Mastery model that are critical to Mastery's success. These findings are consistent with results of the quantitative analyses that found Mastery scored significantly higher than Promise Academies and the Comparison Schools (and higher, but not significantly so than the other models) in terms of Climate and its sub-construct that focused on a central component of relationships within schools: "Respect." This finding is also notable because respect is one component of Relational Trust, which Bryk and colleagues (2010) found to play a critical role in the development of all five essential supports.

At the time of the study, Mastery schools were only one year into “the pivot,” which was described as a significant shift in the model’s approach to Instruction and Climate—a shift that emphasized the humanizing of education. I would expect that once Mastery schools have had more time to implement and refine “the pivot,” future studies would find Mastery schools even stronger in Climate. Again, it is of note that while teachers at both Mastery schools described a focus on relationship building between principals and teachers as well as teachers and students, direct references to “the pivot” or shifts in operator policy were predominately discussed at Mastery School A—the school that had piloted “the pivot” prior to the 2014-2015 school year, and merits/demerits (emblematic of Mastery pre-pivot) were predominately discussed at Mastery School B. The fact that the theme of relationships permeated interviews at both schools whereas the language about a shift did not, suggests both that the shift in culture at Mastery schools may have been in part a more organic evolution of the model rather than result of a specific policy, and (or alternatively) that Mastery School B is not as advanced in implementation of “the pivot” as Mastery School A.

The five essential supports were the central focus of the Shared Solutions Partnership’s efforts over the past two years. The development of District-wide surveys designed to measure the essential supports has led to not only a publicly available database that presents school survey data that is organized by the five essential supports and their sub-constructs, but also to school-level reports that display school’s strengths and weaknesses within the five essential supports and their sub-constructs. These new tools have been discussed extensively with District administration, principals, teachers, parents/guardians, and students; and, measures of Climate and Parent/Guardian-Community Ties were even included in the District’s key accountability tool—the School Progress Reports (The School District of Philadelphia, 2015c). By way of researcher-practitioner conferences and more informal conversations about the surveys and these measures, integration of the five essential supports into District decision-making culture continues to grow.

This qualitative analysis builds on the pre-existing survey data, providing richer descriptions of what the essential supports look like in schools and how they vary by school model. These findings can be used to inform ongoing District discussions about how to best use knowledge about the essential supports for decision-making. By profiling the models in terms of their relative strengths within the essential supports, the goal is to provide a better picture of what is going on inside these different turnaround models and where each model places its focus. In reading about the different school improvement models in this study, we can already see evidence of the policy attributes—a lack of consistency at Universal schools and the Promise Academies evidenced by diverging accounts of Professional Capacity and Parent/Guardian Community Ties; and a balance of Specificity and Authority at Mastery, evidenced by high and clear expectations and a deep respect for teachers as professionals. In the following section, I will explore the presence of the policy attributes more explicitly and in greater detail, with the goal of identifying what drives (or hinders) success within these various improvement models.



Describing Approaches to Implementation

While the essential supports are undoubtedly a useful framework on their own, as discussed in Chapter 3 which laid out the conceptual framework for this study, in designing the surveys we also intentionally embedded measures of the five policy attributes. The policy

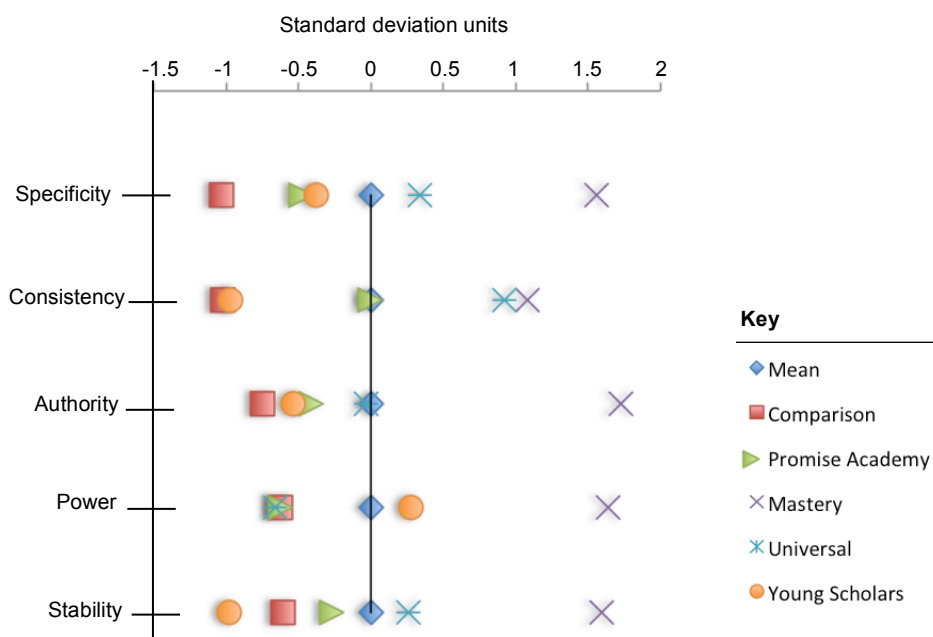
attributes suffer from being a bit more complex to describe as they cut across the essential supports, capturing aspects of *implementing* school improvement models. In short, the policy attributes speak to the “how” of school improvement. For instance, consider Mastery and one of its areas of strength: Climate. The essential supports capture Mastery’s focus on Climate and can be used to describe this model’s approach to Climate by identifying the presence of various dimensions of Climate, for example: essential support sub-constructs such as Bullying, Respect, and School-level challenges to student learning. The policy attributes, while interpreted within the context of an essential support, do not seek to describe Climate per se but rather pose a different question: How does Mastery build or create its Climate? For instance, is it through Authority via resources such as adequate supports for teachers (Institutional Authority)? Or, high teacher morale and shared values (Normative Authority)? While the policy attributes have not yet made it into mainstream evaluation culture, as discovered by the regression analyses for this study, it is the policy attributes and not the essential supports that have the strongest relationship with student achievement, making understanding these attributes and how they operate vital to generating successful approaches to school improvement. In this section, I will dive deeper into the policy attributes, looking inside the “black box” of implementation to better understand how different school improvement models build the five essential supports and strive to generate improvement.

While the policy attributes can permeate any and all aspects of a school improvement model, making them—at least in theory—more complicated to interpret, our survey was by necessity very targeted and precise in how it asked teachers about the policy attributes. Each of the policy attributes was asked about within the context of a single essential support. The decision to measure each policy attribute within the context of one essential support stemmed from the necessity of seamlessly fitting the policy attribute items within the essential supports framework that defined the survey instrument. This decision was also influenced by the Shared Solutions Partnership's dedication to keeping the survey short in order to minimize the burden on teachers, capturing maximum variance using a minimum number of items. The measurement of each of the policy attributes within a singular essential support rather than within each essential support is a limitation of the study, as ideally I would be able to ask about the policy attributes for all essential supports; however, as a pilot for the new integrative framework for school improvement, my results are promising in that they underscore the value of measuring the policy attributes. It is my hope that the results laid out in the section will by demonstrating the value of the policy attributes, compel researchers to measure the policy attributes for each essential support in future studies of school improvement.

How do the models differ with regard to the policy attributes? Illustration 6 on the following page presents plots of each school improvement model's standardized scores on the five policy attributes. The black line through the blue diamonds in the center of the chart highlights the overall group averages for each of the attributes. Noting that the five policy attributes have all been previously linked to strong implementation of school improvement efforts, we can—as was the case with the essential supports—interpret the results presented as areas of relative strength and weakness. For instance, we can see very clearly that the Mastery model is stronger than the others on all five of the policy attributes (although by a slimmer margin for Consistency as compared to the Universal model). There is variation in scores among the other models on all five attributes, with comparison schools falling below the mean for all attributes and Promise Academies tending to score closer the mean, as was the case with the essential supports. We

see the least variation in Power for which Universal, Promise Academies, and Comparison schools are clustered below the mean with Mastery as an outlier above the mean.

Illustration 6. Standardized Scores for Policy Attributes



The precise mean differences among the school improvement models for the policy attributes are presented in Table 15 on the following page. As evidenced in the table, there are significant differences among the models for Specificity, Authority, Power, and Stability ($p < 0.05$). In all instances, the mean differences favor the Mastery model. As was the case with the essential supports, our survey instrument included sub-constructs that allow us to dig deeper and see if there is any sub-component of a policy attribute that is driving the differences in the overall construct. The sub-constructs of Institutional and Normative Authority and Stability: Absenteeism all have significant mean differences, again favoring the Mastery model (see Table 16 on page 120); Specificity and Power did not have sub-constructs. In the tables below, the mean difference (I-J) is equivalent to the mean of group “I” in column two minus the mean of group “J” in column three. For example, you can see in the first highlighted row that Mastery’s mean score on Specificity is 0.531 points higher than that of the Comparison Schools.

Table 15. Policy Attributes Mean Differences at the Construct Level					
Dependent Variable	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.
Specificity	Mastery	Comparison	.531 [*]	.133	.006
		Universal	.336	.149	.347
		Young Scholars	.487	.166	.076
		Promise Academy	.440 [*]	.118	.012
Consistency	Comparison	Mastery	-.277	.143	.656
		Universal	-.101	.182	1.000
		Young Scholars	.059	.190	1.000
		Promise Academy	-.049	.118	1.000
Authority	Mastery	Comparison	.614 [*]	.133	.001
		Universal	.437	.149	.079
		Young Scholars	.534 [*]	.166	.040
		Promise Academy	.552 [*]	.118	.001
Power	Mastery	Comparison	.739 [*]	.126	.000
		Universal	.728 [*]	.142	.000
		Young Scholars	.414	.157	.153
		Promise Academy	.746 [*]	.112	.000
Stability	Mastery	Comparison	.634 [*]	.150	.003
		Universal	.358	.168	.440
		Young Scholars	.633 [*]	.186	.026
		Promise Academy	.531 [*]	.133	.006

Table 16. Policy Attributes Mean Differences at the Sub-Construct Level					
Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.
(I)		(J)			
Institutional Authority	Mastery	Comparison	.751 [*]	.160	.001
		Universal	.464	.179	.167
		Young Scholars	.515	.199	.169
		Promise Academy	.669 [*]	.142	.001
Normative Authority	Mastery	Comparison	.471 [*]	.140	.029
		Universal	.402	.157	.179
		Young Scholars	.515	.175	.074
		Promise Academy	.406 [*]	.124	.035
Stability: Absenteeism	Mastery	Comparison	.659 [*]	.173	.010
		Universal	.462	.194	.262
		Young Scholars	.708 [*]	.216	.034
		Promise Academy	.623 [*]	.154	.005

How do levels of policy attributes help explain the relative successes and challenges of the various school improvement models? My analysis of interview data helped shed light on how key policy attributes were operationalized in ways that explain why a particular school scored high or low on them. Noting the predictive power of certain policy attributes suggested by my regression models, I focus my discussion on those policy attributes found to be significantly related to student achievement, namely: Specificity, Authority, and Power.

Because we already know which policy attributes are significantly (and positively) related to student achievement and have some idea of their presence in the various school improvement models studied (as described in the preceding section on the essential supports), I believe it is most useful to explore what these significant policy attributes look like in practice so that we can think critically and practically about how schools can use these attributes to generate gains in student achievement. Consequently, rather than analyze this data by improvement model as I did for the essential supports, I present data on the policy attributes by level—using a combination of interview data, mean construct and sub-construct scores on the policy attributes, and the precise scale items from the survey to illustrate what it looks like to be “high” and “low” in the policy attributes that regressions identified as significant predictors of student achievement. This

approach to analyzing the data provides an efficient and effective way to synthesize information on the policy attributes. Furthermore, as higher scores in Specificity, Authority, and Power were associated with higher academic achievement, it follows that insights into why a school is scoring high or low these attributes will help explain the relative successes and challenges of different approaches to school improvement and provide meaningful insights into the inner workings of these improvement models that will shape my later discussion on identifying levers for school improvement (Research Questions 3a and 4). Table 17 below, outlines the highs and lows for the policy attributes as defined by the mean scores for the models on each of the constructs and respective sub-constructs. The gray column “True Max” indicates the highest score a model could receive for each of the constructs and sub-constructs.

Table 17. Policy Attributes: Highs and Lows					Comparison Mean (for reference)
	Promise Academy Mean (n=8)	Universal Companies Mean (n=3)	Mastery Charter Schools Mean (n=4)	True Max	
<i>Specificity</i>	0.602634	0.808621	1.113416	3	0.465365
<i>Authority Total</i>	1.596975	1.686462	2.093698	3	1.520361
Institutional Authority	1.275247	1.445547	1.890283	3	1.189600
Normative Authority	1.929626	1.927377	2.279966	3	1.837173
<i>Power</i>	1.359311	1.347684	2.068490	3	1.359411
Key	Low				
	High				

Specificity. In this study, the policy attribute Specificity was measured within the context of the essential support of Instruction. To gauge the level of Specificity used in a school's approach to instruction, teachers were asked about how much control they had over different aspects of instruction in their classrooms. As you may recall from Chapter 2: A Review of Relevant Literature, specificity is defined as “how extensive and detailed a policy is” (Desimone, 2002, p. 438; see also: Porter, 1989; Porter 1994; Porter et al. 1988). If a policy is extensive, detailed, and offers a lot of guidance (i.e., is specific), then there is intentionally less room for interpretation and constraints on teachers’ control. Therefore, to operationalize this attribute, I

chose to ask teachers how much control they believed they have over various aspects of their classroom environment and reverse coded responses such that the less control teachers had, the more guidance we presumed was provided by the school and therefore the higher the model's score for Specificity would be. The exact items that comprise our Specificity scale are replicated in Table 18 below. As presented in Table 17 on the previous page, Mastery led the school improvement models in terms of Specificity, scoring approximately 1.11 points out of a total of three possible points. The Promise Academy approach to instruction was the least specific, and those schools averaged 0.603 on the Specificity scale.

Table 18. Specificity Survey Items

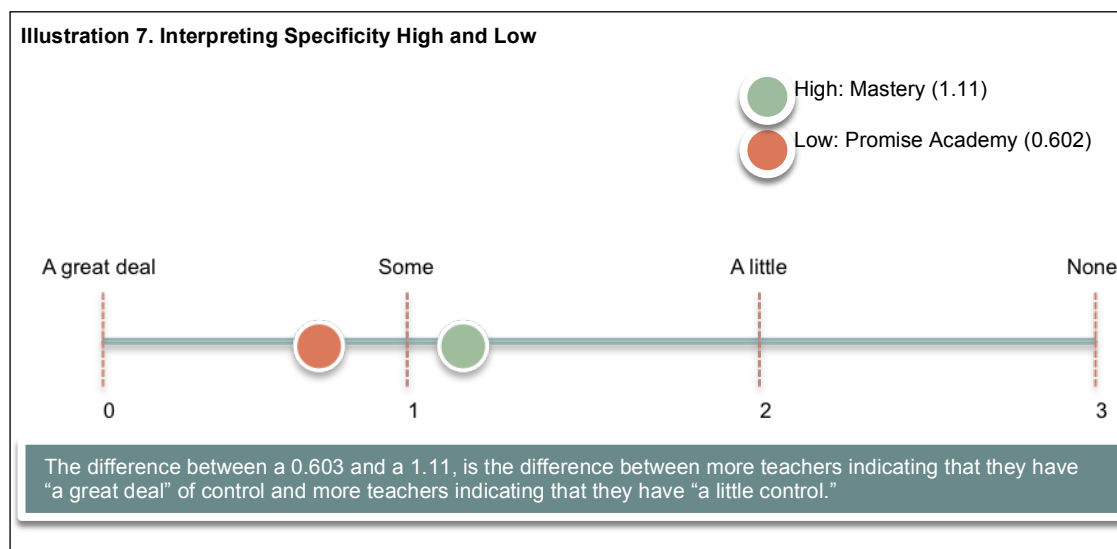
Scale: A great deal, Some, A little, Never

How much control do **YOU** have over the following in your class:

- Determining course objectives
- Choosing books and other instructional materials
- Selecting content, topics, and skills to be taught
- Selecting the sequence in which topics are covered
- Setting the pace for covering topics
- Determining how classroom space is used
- Setting standards of behavior in my classroom
- Choosing the teaching methods and strategies I use with my students
- Determining the amount of homework to be assigned
- Choosing criteria for grading students
- Choosing the evaluation and assessment activities used in my class

Practically what does a 1.11 score for Specificity mean and how is it different than a 0.603? Recalling that the survey items were scored on a scale of 0-3, and noting the items above, we can easily infer that were a model to score a three in Specificity it would mean that teachers have *no* control over instructional activities in their classrooms—rather, they are provided with extensive guidance. Conversely, were a school to score a zero on Specificity, we would say that teachers at that school had a great deal of control over activities in their classrooms and received limited guidance. For help interpreting the differences among school's scores in Specificity, see

Illustration 7 below. In the sections that follow, I will turn to my interview data to better describe what “a little” versus “a great deal” of control looks like.



High Specificity: The Mastery Model. In every interview conducted at a Mastery school, teachers spoke to a sort of bounded freedom associated with the Mastery approach to instruction. Teachers at both schools described a uniform instructional policy and prescribed strategies and materials that they used in their classroom, but emphasized that they have a degree of discretion and flexibility in implementing these prescriptions as they see fit. One teacher explained the Mastery instructional approach as follows:

It's literally like they have unit plans for us. They make it up for us, they give us the curriculum, but we have free reign because we know our kids. And that's what I love about Mastery is the fact that they acknowledge that you know your kids, you know what they need. What do we need to do to fix it? What do we need to do to rectify the unit plan? Maybe move this around, maybe you don't need this lesson, maybe you need to teach it again. And that's what has been really monumental when it comes to the growth that my kids have seen. So 100% discretion, which I feel like helps, because there are some teachers that are my friends that work in other schools, and they have no wiggle room. I would be, I'm too vocal for that, I'm sorry. (laughs) I would be like oh, no. (Adele, Mastery School A)

This increased flexibility for teachers is new to Mastery (as of the 2014-2015 school year), and many teachers referenced the transition from a very rigid sequence of lesson delivery to increased flexibility and more engaging instruction. As one teacher described it:

There's been a lot more flexibility this year even though the curriculum is new. Before it was like you couldn't take a second for anything else. Like it was instruction, instruction,

instruction all the time but now I think there is more flexibility with, like, you know, it would be, you know, in the beginning it was like, nobody talk for the first ten minutes of class but the teacher. Don't even let a student ask a question. But now we've gotten away from that as the years have gone on. Now it's like let students turn and talk to each other. Like before it was like a silencing, like thing, like oh, everyone needs to be silent, be silent, be silent. And I was like they're kids, let them talk; but just let them talk in a structured way. (Emily, Mastery School B)

Further specificity within the Mastery model is evidenced by the instructional plans, which come down from what is referred to as “the nest”—the Mastery central office. As the principal of Mastery School B explained: “There’s been a whole program that we were asked to implement from the nest that we had to just execute.” One teacher identified this as a strength of the model, explaining:

[W]e have like, like an actual branch of people, like the nest, who are hired for their part-, their particular role and they’re experts in what they do and they do a lot of research and they make it known of like of the research they do and you know having, they visit other schools and like what works for them and what doesn’t work. So I feel like we’re able to trust their judgment and when they do deliver to us, I mean it’s not very like you’re gonna teach us no matter what, but here this is a curriculum that we really you know we buy into because of these reasons and it’s worked and if you have any questions or any add ons, like feel, please feel free to reach out to us, so. (Kylie, Mastery School A)

Teachers at both Mastery schools underscored the discretion they felt they had within their

“Last year...it was either the Mastery way or the highway.. This year, it seems that they’re embracing more individuality with the teaching ... So, last year was, you have to do it this way and lessons must look like this, this, this, and this. This year there is a structure to the lesson, but they, they do leave some room for individual growth, for you to express yourself as a teacher, so.. ”

—Lauren, Mastery School B Teacher

where I’ve been told to do something different and it had a negative impact on my students. So you know it’s kind of easy for me to buy in because I see those things happening. You know my goal is I see them coming through. (Ryan, Mastery School B)

classrooms and room for negotiating changes in their instructional approach. The majority of teachers spoke positively about the instructional shift and consistently referenced the positive impact it has had on students. One teacher identified these results as a source of buy-in for the Mastery instructional model, explaining:

...it’s easy to buy in because you see, when you see those results you’re like oh I’m moving in the right direction, what I’m doing is right. So I’ve never been in a situation

Low Specificity: The Promise Academy Model. It is difficult to paint a clear picture of Specificity and instruction at the Promise Academies because teachers' and principals' reports are marred with inconsistencies. At first glance, the language used in the Promise Academies to describe instruction was very similar to Mastery — in fact there was more language around mandates, required curriculum, and needing to follow standards at the Promise Academies. However, while at Mastery teachers consistently described a bounded sense of freedom with regard to instruction, teachers within and across the two Promise Academy sites diverged in their accounts of instruction. The principals also presented contrasting views on instruction. At Promise Academy A, the principal described the curriculum as “mandate[d]” by the District because it is aligned to the Common Core State Standards. This principal elucidated that “They [teachers] don’t have much freedom,” noting that that supplemental materials are selected by a leadership team based on data and that the curriculum provides the “resources, strategies, materials, everything” (Principal, Promise Academy A). She offered additional insights into instruction at her school, using harsh language that stood in contrast to the Mastery data:

[T]his is what you’re supposed to teach, then this is what you’re supposed to, if you didn’t teach it, the children are gonna be tested on the Benchmark, and guess what, they’re gonna fail. (Principal, Promise Academy A)

Some teachers at this principal’s school referenced what the principal “wants” to see in the classroom or have them do, speaking to greater Specificity with regard to instruction, however, one teacher *at the same school* noted:

Well, now we have the PA Common Core and teachers love it because we’re not told what to do. Oh, go; you have to go through this book. Start from the beginning and end here. No, now you can use whatever resources that you see fit to teach, you know, that anchor within the Common Core so teachers have a lot of discretion. (Cathy, Promise Academy A)

At Promise Academy B, the principal had the following to say about teacher discretion (emphasis added):

They, the materials, well we use the, we have for my math I bought, we use My Math, we use the guided reading, actually we have the book rooms, so we had the discretion of what, what text they’ll use. We’ve also, we have Glenco for the older kids. So, you know, they have to use those programs but they use it as a resource. You see what I’m saying, so it’s not like you’re going by the base or going by the script....So they have to use it as a resource and they’ll pull from different things and *the more creative the better*.

A teacher at this principal's school offered a comparable description of the instructional approach, explaining:

[E]ven though it's mandatory, we still have so much to work with, we can still kinda go off on our own. Find other resources. You know, I can do centers in the middle of a lesson. I mean I just do whatever is best for my kids. But we have so much like wiggle room to kind of, you know, do what we need to do for our students. (Maxine, Promise Academy B)

Generally teachers referenced restrictions, rules, and standards with regard to instruction, however, they also consistently spoke to taking the initiative to step outside of these guidelines,

“[I]t’s nice to have the restrictions so because some classes I go into I’m like, it’s too much, I got to leave I don’t even know where to start. But it’s also like, I would like more room for this or I would like more room for that and so and I think over the years we’ve learned to kind of rear off to what works best for our kids. ”

—Jane, Promise Academy B Teacher

drawing on supplemental materials or adjusting strategies to meet the needs of their classes. Interview data suggests that the freedom to use outside resources may explain—at least in part—why in general Promise Academy teachers reported having more control in the classroom. While only mentioned by a handful of interviewees, the Promise Academy

model’s transition away from a scripted curriculum may have also contributed to teachers’ perception of a lack of Specificity with regard to Instruction.

Authority. In this study, the policy attribute Authority was measured by two sub-constructs that fell within the essential support of Climate—Institutional Authority and Normative Authority.

Part 1: Institutional Authority. To gauge the level of Institutional Authority, teachers were asked about the extent to which various shortages of resources were a challenge to student learning in their schools and classrooms. The exact items that comprise the Institutional Authority scale are replicated in Table 19 on the following page. As presented in Table 17 on page 121, Mastery led the school improvement models in terms of Institutional Authority, scoring

approximately 1.89 points out of a total of three possible points. The Promise Academy model scored the lowest in Institutional Authority, earning a score of 1.28.

Table 19. Institutional Authority Survey Items

Scale: A great challenge, a moderate challenge, A slight challenge, Not a challenge

To what extent do you consider each of the following factors a challenge to student learning in your school?

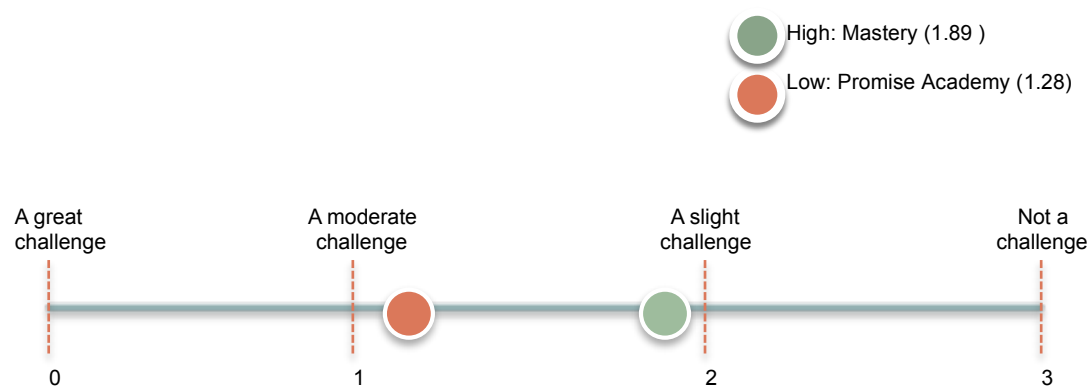
- Shortage of highly qualified teachers
- Lack of high-quality professional development opportunities for teachers
- Shortage of instructional support staff (e.g. teacher aids and reading specialists)
- Shortage of other support staff (e.g. nurses, counselors, and security)
- Lack of teacher planning time built into the school day
- Lack of support for teaching special education students (i.e., students with IEPs)
- Lack of support for teaching English Language Learners
- Lack of school resources to provide the extra help for students who need it
- Lack of computers or other technological resources
- Lack of support from parents and guardians

To what extent do you consider each of the following factors a challenge to student learning in your classroom?

- Insufficient class time to cover all of the curriculum
- Inadequate textbooks, materials, or other non-technological instructional resources
- Lack of computers or other technological resources

Again, these items were scored on a scale of 0-3, with a composite score of zero indicating that the various areas of lack in resources pose great challenges to student learning at a school, and a three indicating that these areas of lack do not pose any challenge to student learning at a school. For help interpreting the differences among models' scores in Institutional Authority, see Illustration 8 on the following page. Again, I will turn to my interview data to better describe what "a slight" versus "a moderate" challenge with regard to school resources looks like.

Illustration 8. Interpreting Institutional Authority High and Low



The difference between a 1.89 and a 1.28, is the difference between more teachers reporting that a lack of various resources is “a slight challenge” as compared to more teachers reporting that this lack is “a moderate challenge.”

High Institutional Authority: The Mastery Model. While a few Mastery teachers mentioned needing more time and support staff, overall, it is surprising—especially given reports on the various resources and manpower available at Mastery schools as compared to other schools in the sample—that Mastery did not score even higher on Institutional Authority. This suggests that perceptions of “challenge” are all relative. One teacher explained (emphasis added):

A challenge, I would say, is having more culture available, more cultural staff available. Because I notice that *we only have about two or three deans on our floor*. So, when, you know, if one dean is occupied, which always happens, and another dean is occupied, then we kind of, we kind of have to tend to our own devices. But I’d say one challenge is that having more staff available for the cultural demands. (Lauren, Mastery School B)

Another teacher at a different Mastery school echoed the call for more manpower:

I feel like if we had a little bit more manpower it might feel a little less like daunting on us, cause if we have like a difficult student in the classroom sometimes it is hard to teach the whole class so I think if they hire some, I’m sure it’s just like money issues and like if they could they would hire more people, but sometimes you feel like it’s a lot for that one dean to handle like kindergarten through 2nd grade when there’s like at least one child per classroom that has behavioral issues. (Kylie, Mastery School A)

To the casual observer and certainly to myself as an interviewer, resources at Mastery abound.

Support staff available to teachers explicitly mentioned in interviews include various assistant

principals and a number of deans with specific roles such as culture, behavior, and instruction; instructional coaches; special education services; a school psychologist; math specialists; case and social workers; and secondary reading teachers. In one of the classroom observations there were four adults present: the teacher, an instructional coach, the principal, and a special education assistant. In our observation at the other Mastery school, there was the teacher, the principal, and one additional adult assisting with instruction. These observations stand in stark contrast to classroom observations at other schools where there was usually only one adult in the classroom—the teacher.

In general, material resources did not come up in conversations with Mastery teachers, which is further evidence of Mastery's strength in Institutional Authority. One teacher did highlight two notable resources available to Mastery teachers: Mastery-based computers and telephones that allow you to dial in to any of the Mastery schools. Both of these resources serve as innovative and additional instructional aids for teachers. As a teacher at Mastery School A explained, these tools additionally fostered collaboration amongst teachers, building another type of resource: professional capacity. He elucidated:

[W]e can type the word, portal, into any of the Mastery-based computers and automatically our portal will come up based off of the network support team so on that portal you can click on specific lessons or videos of outstanding teachers that, of how they taught a specific lesson. There's a lot of video-taping that goes on in classrooms around here in this, either in this building or in Mastery buildings across the network. So, you know, if you really want to see like my specific lesson, but I really want to see like a high-fluency lesson in action, and I want to talk about like the difference between what I do and what I saw that's outstanding in this lesson, I can look at that and then at the end, at the bottom of that video is the email of the teacher. You can, that you can actually contact right away cause if it's someone that you might not have ever had a conversation with, you can just click on it and say, hey, I just watched your video and, you know, I want to know like can you help me with this particular part of my lesson or can you help me with a particular topic in math? So that's kinda cool. (Tim, Mastery School A)

Low Institutional Authority: The Promise Academy Model. As was the case in discussing the Promise Academy model in terms of the essential supports, teacher and principal accounts of Institutional Authority varied by school, again suggesting that there is a lack of a cohesive Promise Academy “model,” at least as evidenced by current implementation. One consistent theme in the interview data was trying to make the best of un-ideal circumstances. Principals and

teachers spoke to various challenges when it came to school resources, and frequently noted that some of these resources were things they had at one point, but lost completely or had limited due to budget cuts. The principal of Promise Academy A expressed hope that additional supports would come from the District, noting:

I mean, you know, with Dr. Ackerman's dream, to me, this is her dream, that, the Promise Academies, when they, they came out, because they're like the Renaissance schools for the School District of Philadelphia. But when you start cutting, when you make the cuts that you did. We had real progress going on, like I said, especially with that extended day piece. And that's an expens-, that, that's an expensive piece, but that was important. Because our children had an additional hour of let's say, you know, reading and math every week, you know, it was consistent. And then you cut that benefit and, okay, we're still trying to squeeze in everything else we're supposed to teach, because it's Common Core standards, trying to, you know, design something that, you know, it's, it's hard.

The principal of Promise Academy B referenced budget limitations, but did not frame them as a challenge to the extent that the principal of Promise Academy A did. In fact, the Promise Academy B principal mentioned that due to outside grants, her school has been able to maintain many aspects of the Promise Academy program. These contrasting views again emphasize inconsistencies in the Promise Academy model.

Similarly, some of the challenges with regard to resources described by principals and teachers were consistent in theme, but varied with regard to extent. For instance, one principal explained:

I had a school police officer here when I first, last year we had one full time. And then this year they cut his, his time here to three days a week. I need a school police officer five days a week. I really do, because we have problems and issues here, I'm sure that affect quite a few other schools, but we need a police officer here, just for safety, for safety. And, cause we have people coming in from the community. This is not the best place in the world, but we make the best of it. (Principal, Promise Academy A)

At the other Promise Academy school, a teacher noted:

[W]e don't have a school police officer at this point. That would be so beneficial to us at this time to just monitor hallways because at this time of the year the kids don't want to be in the lunch room, they don't want to be outside, they don't want to be in the class, I'm like, I don't, I don't really know where you want to be right now so. (Jane, Promise Academy B)

The issue of a police officer having limited days versus a school not having a police officer at all underscores the within model variations on this policy attribute. Additionally, when considered

alongside the Mastery interviews in which the central complaint was wanting *more than one full-time staff member* to attend to Climate, these excerpts highlight how subjective perceptions of challenges are.

Another human resource-related theme, which was consistent across schools was that there were not enough “bodies.” Specifically, teachers mentioned a need for additional personnel to cover classes, supports to aid in classroom management, additional people in the classroom to compensate for large class sizes, and non-teaching aids who would be available to offer support in a variety of capacities, such as in the lunchroom. For one of the Promise Academies, the need for additional ELL teachers was noted as “there is such a huge population and sometimes not enough bodies to be, you know, in all the places that they need to be at” (Darcy, Promise Academy B). At the other school, the focus was on getting increased special education supports. The principal of Promise Academy A explained that they have a great special education liaison but wishes she were fully released, elucidating:

We have so many children that are waited to be testing...And that support in the Special Ed. area, because we do have so many children that are so needy, and we want to get everybody tested, which almost becomes like an impossibility within a year when you have so many children that have to be tested.

While discussions about qualified teachers did not arise as a theme across the Promise Academies, within one of the Promise Academies, this aspect of Institutional Authority was described as a challenge. Teachers bemoaned a lack of substitute teachers, which was described as disruptive to the teachers who had to cover classes. One teacher noted:

I think the only area of concern is just those teachers who, who weren't, who weren't here or who stopped coming to work, who kinda like gave up on their students. And it, and it impacted the whole school. (Hannah, Promise Academy A)

The principal at this same Promise Academy also described a teacher staffing issue, explaining that this year the people sent to fill positions from Central Office “were horrible...They sent quite a few people because we were unable to fulfill those positions, so we were kind of stuck with incompetency” (Principal, Promise Academy A). This posed a significant problem because as the principal explained:

[T]o me it's very important that we have great teachers in a, in a priority school in order to move forward. I can't have mediocre, I can't have good. I have to have great teachers. Or just give me something I can work with. When you send me people who don't come to work and you know there's a previous history, because I looked it up, that those types of teachers should not be coming to a school like this, because it just further holds us back and pulls us down. (Principal, Promise Academy A)

Again, this staffing issue was dramatically different at Promise Academy B, in that it was a non-issue. In fact, the principal explained: "I believe I have been fortunate, we've been fortunate to hire some of the smartest people in the world so we try to build capacity and then capitalize off of everybody strengths and also help them to become stronger" (Principal, Promise Academy B).

In terms of instructional resources and materials, there were again diverging accounts within and across schools. At Promise Academy B, a number of teachers reported having access to a lot of supports, including materials as well as principal input. As one teacher noted:

Prior to coming to a Promise Academy, I felt like I had no support with regards to resources and behavior with the students; but being here, it's a different, it's night and day. (Maxine, Promise Academy B)

Another teacher at the same school provided an alternative perception of instructional resources, explaining:

I think the challenge is also not always having the materials that are necessary to meet the needs of those students. You know, when you have children that range in level from C to M you have to be able to pull a great variety of materials. We do have a really good lending library here which was, you know, put together for us, but sometimes there's just not enough bodies and there's not enough materials to be able to reach everybody effectively. (Darcy, Promise Academy B)

Again, at the other Promise Academy, a lack of instructional resources did not emerge as a theme. In fact, as one teacher noted:

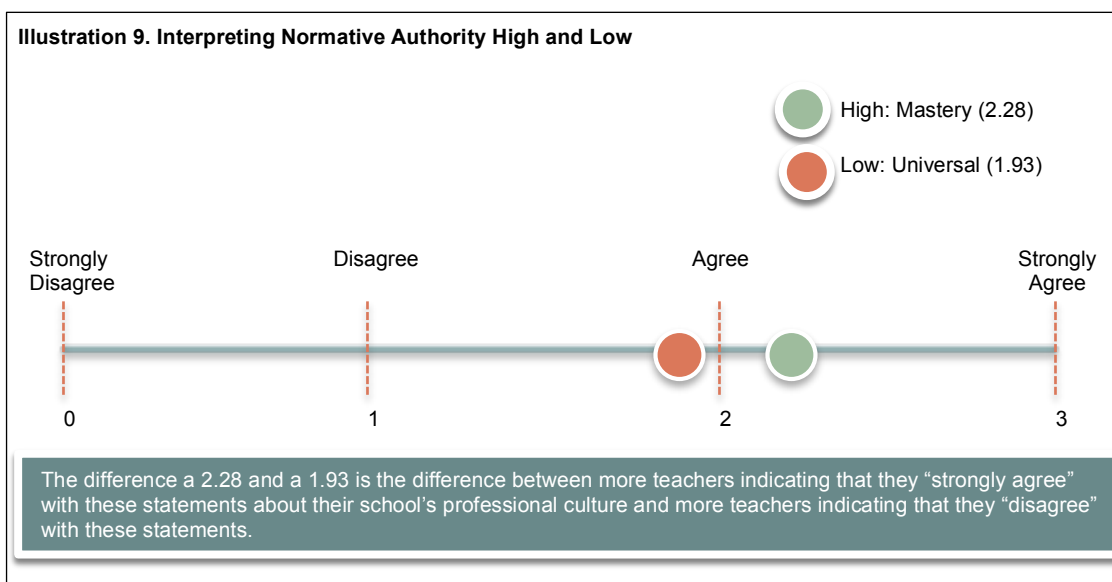
And we have, I would say multiple resources. I mean finding the resources, you know, material resources as well as personnel in our building. I think that teachers, all they have to do is ask for it. And a lot of teachers do. I don't think there's no one who hasn't raised a hand and said I need help with something. But teachers know to ask if they need support. They know to ask if it's something that we can purchase, you know, we'll get it, hopefully, you know. It's nothing in lieu of; where a teacher could say it's the school's fault that this child isn't reading or it's the school's fault that, you know, this child isn't at; you know, I don't think any teacher could say that here. (Hannah Promise, Academy A)

Part 2: Normative Authority. To gauge the level of Normative Authority within a model, teachers were asked about the extent to which they agreed or disagreed with various statements

about the professional culture at their school. The exact items that comprise the Normative Authority scale are replicated in Table 20 below.

<p>Table 20. Normative Authority Survey Items <i>Scale: Strongly Disagree, Disagree, Agree, Strongly Agree</i></p>
<p>To what extent do you agree or disagree with the following statements?</p> <p style="padding-left: 40px;">My school has clear strategies for improving instruction.</p> <p style="padding-left: 40px;">Teacher morale is high.</p> <p>To what extent do you agree or disagree with the following statements?</p> <p style="padding-left: 40px;">Teachers at my school have high expectations for students.</p> <p style="padding-left: 40px;">Teachers at my school support the idea that all students can learn.</p> <p style="padding-left: 40px;">Teachers feel responsible when students in my school fail academically.</p> <p style="padding-left: 40px;">Most of my colleagues share my beliefs and values about what the central mission of the school should be.</p>

As presented in Table 17 on page 121, Mastery led the school improvement models in terms of Normative Authority, scoring approximately 2.28 points out of a total of three possible points. The Universal model scored the lowest in Normative Authority earning a score of 1.93. As was the case with the scales already presented in this chapter, Normative Authority survey items were scored on a scale of 0 to 3. The highest score—a three—would translate into all teachers at a school strongly agreeing with the aforementioned statements about their professional culture, whereas a zero would indicate that teachers strongly disagreed with these statements. For help interpreting the differences among model's scores in Normative Authority, see Illustration 9 on the following page. While the variation in this attribute lends itself to an easier interpretation than the attributes previously discussed (it is not too difficult to imagine the difference between disagreeing and strongly agreeing with these statements), interview data sheds additional light on this variation and why it may be important in thinking about school improvement.



High Normative Authority: The Mastery Model. Mastery’s culture of high expectations and clear strategies for improving instruction, two components of Normative Authority, have already been discussed at length. Therefore, I will limit this discussion to aspects of Normative Authority not yet covered by the chapter, suggesting that you refer back to the section on Mastery’s essential supports and also Specificity as needed.

Interestingly, it was mainly the principals that spoke to the presence of Normative Authority at Mastery schools. Even when thinking about Normative Authority as teacher buy-in for a school’s mission and vision, it seems as though these characteristics in teachers were pre-screened for through Mastery’s hiring process, perhaps explaining why other than discussion of buy-in for the instructional strategies which was generated through using research-based instructional approaches and demonstrating their effectiveness, buy-in was not something that consistently came up in interviews with teachers. In reference to the Mastery hiring process, one principal explained:

[T]hey’ll send me people in the pipeline that they have and look to move them in the building and if we find that they’re a strong fit then I’ll go ahead and recommend them for hire. So typically our demo, once they get to my school they do a thirty minute demo and a thirty minute debrief with me and another assistant principal. We’re having a conversation about what we believe in, what our values are as well as giving them some feedback and making sure that feels comfortable for them. And if we find at the end of the

hour with them, because they're already been through the process before, getting to us, that we find that they, they are a good fit we will recommend them for hire. (Principal, School B)

In short, Mastery teachers are selected because they are a good fit with the organizational values, which strengthens Normative Authority. Therefore, not surprisingly, when this same principal was asked about the extent to which teachers were committed, have shared values, and were collegial and respectful, she confirmed the presence of all of these aspects of Normative Authority. She described the professional culture at her school as follows:

I think Mastery has such a rigorous process to want more people, to make sure that you, you become a part of the organization, but I do think most people that are here are very committed to the students and the families. I would say at least 97% of them. I think there is sometimes a few in each school that any not share that vision. But I find, you can find themselves probably not staying with us. But I do think that the relationships between the teachers and the staff are very strong. I feel like this is very hard work and we try to make sure that we actually again follow our values even when we're interacting with each other, and I think that that's a lot of what gets us through is just depending on one another in the day and you know giving someone a smile when you know it's a rough day. (Principal, School B)

The other Mastery principal spoke at some length about Mastery's nine organizational values (right sidebar) and the important role they play in facilitating Mastery's success. He described how these values permeate and guide conversations throughout the year, explaining:

[T]eachers get routine feedback on those [the organizational values] and certainly two very explicit conversations at the mid-year and end of year about their personal values and so you should hear and would hear in a normal course of a day you hear somebody whether it's a teacher coming to me to say like, "Doug in the spirit of straight talk, like I feel like that was a waste of our time yesterday," or you know you'd hear an assistant principal telling a teacher, "you know one of our values is grit and I, I need you, like I understand that this

Organizational Values

1) Student Achievement -- Above All
Student achievement is the civil rights issue of our time and the reason we exist. Each staff member is responsible for our students' success.

2) We Serve
We serve students and their families first. Our business is their success.

3) The High Road
We do the right thing. We are fair and treat folks with respect.

4) Grit
Our students' futures are at stake -- we don't give up. We do more with less. If it doesn't work, we fix it. We find a way.

5) Joy and Humor
Our positive, caring culture supports student and staff success. We like fun. We love to laugh.

6) Straight Talk
We face reality, communicate honestly and respectfully, and hold each other accountable.

7) Open Doors
Everybody is welcome to talk to anybody. We are open and transparent.

8) Continuous Improvement
We seek a better way -- always. We are engaged in an ongoing cycle of goal setting, action, measurement, and analysis.

9) One Team
We are in this together. We may disagree, but at the end of the day, we support each other 100%.

(Mastery Charter Schools, 2016).

classroom has been challenging lately but we figure things out, that's who we are, that's what we do, I need you to embody that value." You know I think you would really truly hear the values alive in the way that people speak. (Principal, Mastery School A)

These values were referenced in interviews with teachers, however, predominately at Mastery School A, indicating some variation within the model and room for growth.

In our interviews, across schools but again predominately at Mastery School A, teachers did explicitly mention surveys and informal meetings to provide feedback to leadership, a teacher leadership program, as well as Professional Learning Communities (PLCs) and new opportunities to have critical conversations about tough topics such as race and biases, explaining that these contributed to the development of relationships and shared values among teachers. One teacher explained:

[The Professional Learning Communities] allows us to have some genuine candid discourse about what's going on in the school, and it definitely established like a real in-depth, down to earth relationship, because I feel like in other schools, with a lot of my other colleagues, you know that connection of really being able to share what's going on and affecting the decision making doesn't really happen, but it happens here. And that's what's really, really nice, because I know me personally, I'm very like straight to the point. I'm very honest, and with me being a PLC leader, if my teachers are saying like these are some things that are going on, like bring it to the table, I do it, and they're so receptive. So that's been really, really helpful, me being a teacher and being the lead and being able to affect decision making, so that's been helpful. (Adele, Mastery School A)

The familial aspect of Mastery professional culture also speaks more broadly to the strong presence of Normative Authority at the school. As one teacher explained:

But one of the things that has seriously kept me here is not only the support that I received from the instructional staff, but more so the support I received from my team or from my friends here. I mean these, these people are really family from the, from the basement all the way up to the 3rd floor. Now I have the most interaction with the 3rd floor teacher so, of course, my closest bonds, I would say, are personally with them. However, do I feel definitely connected with them? Of course...Jenny is like my little sister. I mean our families are very closely connected so, and both of them I met when I started here so it's been, it's been really awesome to develop friendships both inside and, you know, outside. I mean Yolanda and I travel together, you know, so it's really great to have that I feel and that connection. (Tim, Mastery School A)

At Mastery School B, a teacher also spoke to the Normative Authority, explaining:

We spend a lot of time together, so I think we're like, I mean I don't want to say we're friends, but you know we, you know we are accountable to each other and I think everybody feels that. We spend a lot of time with each other, so we you know develop relationships so it kind of you know creates a bigger buy in. you know I have to do this because if I don't then students will respond like this and then in their class they will

respond like this, you know so we kind of owe it to each other to remain consistent.
(Ryan, Mastery School B)

Low Normative Authority: The Universal Model. As was the case with the essential supports for Universal, there were inconsistencies in the interview data speaking to Normative Authority both within and across Universal schools. In particular there were divergent accounts of the extent to which teachers are committed to the Universal model and its values. One teacher explained:

The expectations are there, they are high and we definitely try to stick with those high expectations. I believe that every teacher in the school aims to, no one comes in and says, well this is all they can do (Nicole, Universal School B)

At the same school, another teacher shared insights to the contrary, noting: “As far, as I said, we interact very well but I don’t think everybody has the same shared vision and that’s more new this year cause we had a lot of turnover last year with staff” (Brianna, Universal School B). Jim, a teacher at Universal School A echoed this sentiment when asked whether there was a shared vision at his school, replying: “No, I don’t think so, cause if there was, then everybody would be on the same page, and we’re not. There isn’t.” Arielle, also at Universal School A, corroborated Jim’s observation as she noted a particular challenge needing to be addressed that spoke to a lack of Normative Authority, explaining: “I’d say just working on having all teachers on the same page, and not just some that okay, I’m just here to get a paycheck, basically, and having everybody on the same page.” One teacher spoke directly to the conflicting accounts regarding shared vision outlined above, remarking:

I think you kind of have a split here. I think you have the majority of the staff that has a shared vision. Most of us who have that shared vision have been here for the five years. You do have your dissenters. You have some people who you know, kind of work in isolation, and that works best for them. And then you have your people, your staff who works in isolation and it, you could tell that this is not the place. So it’s kind of one or the other. The majority of us who’ve been here for many years share that same like idea of how things go here. (Leo, Universal School A)

Considering these different insights into Normative Authority, it seems that both within and across Universal schools, there are pockets of strong Normative Authority and pockets of weak Normative Authority. The polarizing views on this indicator explain why the Universal model

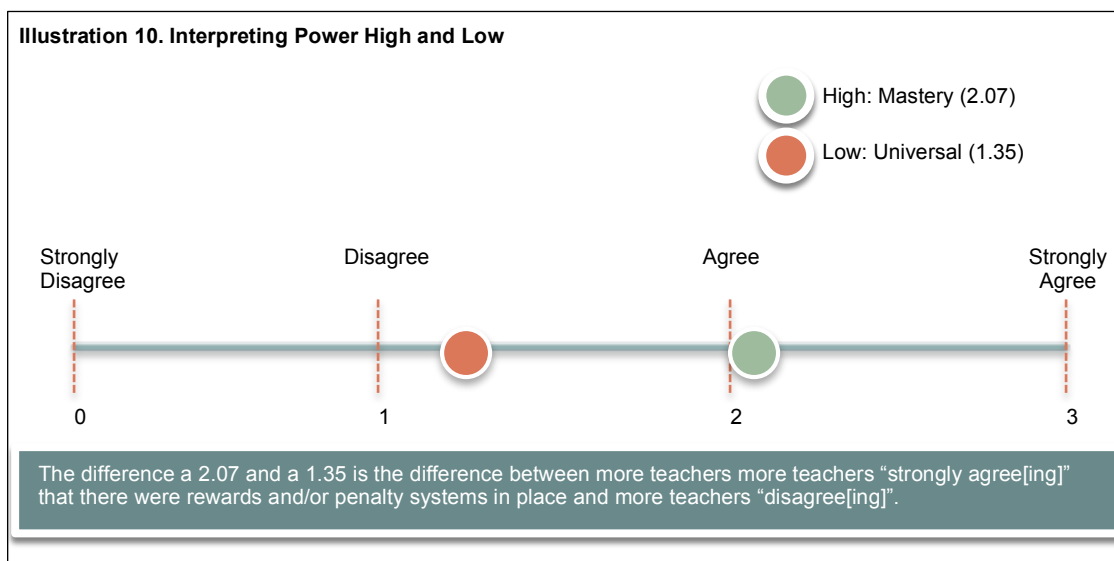
scored low in Normative Authority, and the insights offered by teachers shed light on ways to improve in this area—for example, institutionalizing an mechanism to orient new employees to the Universal professional culture in an effort to reduce the gap in the values shared by new as compared to long-time teachers and also combat instability in school staff.

Power. The final attribute in our discussion, Power, was a straightforward two item indicator that was asked about in the Climate section of the survey, but is more meaningfully interpreted within the context of Professional Capacity. To gauge the level of Power used by a school in implementing their model, teachers were asked about the extent to which they agreed or disagreed with two statements, one about rewards and one about penalties. The exact items that comprise our Power indicator are replicated in Table 21 below.

<p>Table 21. Power Survey Items <i>Scale: Strongly Disagree, Disagree, Agree, Strongly Agree</i></p>
<p>To what extent do you agree or disagree with the following statements?</p> <p style="padding-left: 40px;">My school or District/CMO recognizes or rewards me based on my teaching and/or student achievement.</p> <p style="padding-left: 40px;">My school or District/CMO penalizes me based on my teaching and/or student achievement.</p>

As presented in Table 17 on page 121, Mastery led the school improvement models in terms of Power, scoring approximately 2.07 points out of a total of three possible points. The Universal model of improvement had the lowest score on the Power indicator, earning 1.35 points. As was the case with the other attributes, Power items were scored on a scale of 0 to 3, with zero indicating that teachers strongly disagreed with the statements about rewards and penalties and a three indicating that teachers strongly agreed. Again, because of the nature of the questions, variation in this attribute lends itself a more straightforward interpretation. Specifically, more teachers at Mastery schools strongly agreed that there were rewards and/or penalty systems in place, whereas more teachers at Universal Schools disagreed (see Illustration 10 on the following page). This suggests that an incentive/penalty system is a component of the Mastery, but not the

Universal model of school improvement. Interview data sheds additional light on this variation and why it may be important in thinking about school improvement.



High Power: The Mastery Model. The qualitative data on Power is relatively straightforward as the construct honed in on identifying the presence (or absence) of rewards or sanctions. Mastery was the only school in the sample that had a clear and extensive teacher incentive system in place. Accounts of the rewards and penalties at Mastery were consistent across teachers, principals, and schools, with a strong majority (but not all) teachers explicitly mentioning Mastery's pay for performance system. One teacher summed up this entire system succinctly:

So our scale is, is a performance based scale so your rating is, will eventually be tied to your salary next year. Also if you are not performing at an adequate level then you could be put on performance, plan of performance, improvement plan, they call it the plan for short and that's if you're not performing at a, you know a certain standard. (Taylor, Mastery School A)

Another teacher offered more insight into the process explaining that in every report period teachers have at least five mini observations (15 minutes) through which they receive "glows, like what's going extremely well, focus area, and next steps" (Adele, Mastery School A). At the end of the evaluation cycle, there are four categories that teachers are sorted into based on their performance: Associate, Senior Associate, Advanced, and Master. Pay raises associated with

these categories happen at the end of the year. There is a distinct and thoughtful benefit to the five mini-observation approach and the set-up of the reporting periods that this same teacher explained:

What is good, the first report period, they give you leeway. They don't count that towards your end of year. Then, RP 2 [Reporting Period 2] is when you'll start having your mid-year conversations, so your RP 2 data, your RP 2 placement at either being advanced, proficient, master, or outstanding, that will be in the mid-year. And then, of course, you have the third cycle, which is around PSSA time. The fourth report period, which we're in now, it doesn't count towards your end of year, cause if you think about it, the most crucial times are that report period 1 to 3, cause it's during the PSSA time, and also, the end of the year is very chaotic, so you usually get your end of the year during RP 4. So I had like my May 14th, and RP4 isn't even over, but I had all my data from RP 1 to RP 3 on there, but only RP 2 and RP 3 counted. (Adele, Mastery School A)

In addition to the observation data, a Mastery principal explained that teacher salary is also based in part on surveys taken by the 3rd through 6th graders that provide teachers with feedback, which can then also be used by the principal in making final salary determinations. As this principal explained:

Students are expected to write comments, teachers get those comments, they get a rating of one to five. All of this goes through a filter of principal has final say. So like I could you know put all these factors into a calculator and it says, teacher is expected to stay a senior associate and get a 2% raise and I could say that's ridiculous she's an advanced teacher she should get a 12% raise the answer is whatever I say, you know so, within reason of course. (Principal, Mastery School A)

A teacher at the other Mastery School commented on the motivating power behind this incentive system:

I think is cause I think that, you know, it, at the end of the day, people need money. I mean like, you know, so the fact that Mastery's pay scale is, is, you know, is pretty nice so I think people are trying to advance. So I think that, you know, you, you want to do well on your observations because you recognize that it has an impact on you, your family. Like it's, it's kinda, that's kinda big. (Emily, Mastery School B)

At both schools teachers spoke positively about this model of performance based pay. One teacher explained:

I think that it drives teachers to success. I don't think that there's, at least I haven't experienced the amount of like negative pressure from it. I feel like it's a motivator for me and I think that it does motivate and keeps a lot of people on board and the reality is like we're here for a mission but also people have to like support themselves. So I think that's been a successful piece of their model. (Taylor, Mastery School A)

While descriptions of this pay structure were overall positive, there was a drawback to this system reported by one teacher:

The only thing that I struggle with and I know that other teachers struggle with as well, is that when it comes to moving from category to category, so like being advanced to master, there is a gray area, meaning that there is not like a tangible like quantitative way of showing like what's advanced, what's master. So like right now, like I'm really happy that I moved to advanced, but I'm like Lisa, you already know like I'm trying to get to master teacher, because I know that my results have shown that I can be a master teacher. But inevitably, it's very difficult for them to give tangible next steps, cause that's like at \$10,000, \$15,000 jump. So like with that amount of money, you need to make sure that they're like literally tangible things that I can see that I can make sure I'm doing to move to master. (Adele, Mastery School A)

In addition to monetary rewards, teachers also noted additional rewards for their “grows” in instruction that included things such as “verbal recognition, praise through the corporation, bonuses. I know I, I received a bonus for, for doing a little bit extra, going above and beyond” (Lauren, Mastery School B).

In terms of penalties, teachers were at a general loss—suggesting that perhaps not getting the rating you wanted was a penalty or that a penalty was needing to take actions to improve. Providing teachers with constructive feedback and support in making changes again underscores Mastery's focus on building capacity and developing relationships with teachers that arose in my earlier discussion of Leadership and Normative Authority. One teacher remarked:

I don't, there are no penalties whatsoever, I mean if anything it's just, like a very understanding kind of perspective and instead of like, it's not what you did wrong, it's like okay how can we problem solve this? So I think that's more the perspective as opposed to like what did you do? It's not, there's no accusatory tone to it. I remember like our first report period we had benchmark scores and these two classrooms like only like two kids out of the whole class passed and these teachers were like very upset and being really hard on themselves, but Kim was very understanding, she's like, it's not about what you did, let's like kinda take a step back and see what can we do for the next time. So I think that's really helpful and like, not like tearing down any like morale but keeping your morale up and just think, you know having problem solving strategies. (Kylie, Mastery School A)

Again with an eye toward continual improvement and emphasis on Specificity, a Mastery principal noted that they are currently redeveloping their feedback and accountability model. He explained the reasoning behind this:

I think at, at different campuses it played itself out differently so we are going to be as a network incredibly more prescriptive about what that should look like and we're gonna

pull out something that was missing this year which was every time you're in a room you're commenting on a set of six foundational practices. (Principal, Mastery School A)

It is important to note that half of the teachers at Mastery School B (as well as the principal) also noted the incentive systems in place at Mastery, however, did not speak to them at length or as in great of detail as did teachers at Mastery School A.

Low Power: The Universal Model. Continuing with the theme of inconsistencies in reporting within the Universal school improvement model, some teachers reported that there were no rewards/recognition or penalties, while other offered up specific examples of both. At one school, rewards varied from things such as getting a good rating on their teacher evaluation to hosting breakfasts for teachers, or receiving packages of candy. One teacher said:

But I mean they give us rewards, like here like all the time on different things because they know how hard we work, they know what we're going through, so like our, and our administration is great with that, with rewarding us. (Sam, Universal School B)

Conversely, another teacher at the same school reported simply: "There's no rewards or incentives" (Jane, Universal School B). At the other Universal school, a teacher noted that recognition may come via e-mail, but other than that there were no rewards. Other teachers mentioned rewards, such as gift cards, for teacher attendance and as a teacher at Universal School A explained:

[S]he'll [the principal] say, they do recognize, "I recognize so and so for doing this," that type of thing. They'll do that. And then the attendance board outside, if your name's up there, you know, you had either like perfect attendance or one or two. (Arielle, Universal School A)

Again providing evidence to the contrary, another teacher at Universal School A when asked about rewards and penalties responded:

There's nothing. I mean I think that's why most of us don't really care, because there's nothing attached. I mean if you do what you're supposed to do, you get a contract for next year. I mean I guess the only penalty would be not to receive a contract. (Leo, Universal School A)

While the penalty of perhaps not being asked to return was brought up at both schools, teachers across schools also emphasized that their schools' focus more on developing improvement plans and providing constructive feedback for teachers to improve rather than penalties for poor

performance. One teacher described the benefits of not having particular rewards or punishments explaining:

I wouldn't say there were like rewards or punishments and I kinda like it that way because it's no fair in it, it's just more so like I'm allowed to, now within myself I may say like, "oh my God this score is horrible," you know? And they always do a great job of making me feel like, no this score tells you where you need to improve and making me feel more comfortable cause I have had my moments when, what did I do wrong, like the students, but there's no punishment or reward tied to it and I think I like it that way because it allows me to be true to my pedagogy instead of working to receive a reward or working to run from a punishment, I'm just working for that positive feedback, so that's, to me that's a reward in itself cause I kinda like getting a four. (Nicole, Universal School B)

Recap. The policy attributes of Specificity, Authority, and Power were all found to be significant predictors of student achievement in the regression analyses for this study, suggesting their importance in generating school improvement. Interview data provided valuable insight into what it looks like to be "high" or "low" on these attributes that not only helps to explain models' successes and challenges with regard to improvement but also informs the identification of levers for school improvement.

Notably, despite the significant difference between the models' scores on Specificity, teachers at Mastery schools and Promise Academies used similar language to describe their school's prescription for instruction. The critical insight that we can extract from themes in the interview data is that whereas Mastery teachers felt "bounded authority" which allowed them flexibility while working within a specific instructional framework, at least some teachers at Promise Academies dealt with the prescriptiveness of the instructional model by simply ignoring it. I believe this insight underscores the importance of generating buy-in and Normative Authority to support the Specificity of a model. The suggestion that Normative Authority—on which Mastery was high—plays a role in how Specificity plays out lends credibility to McLaughlin's (1987) observation that "even an army of auditors would be unable to force compliance with the *spirit* of the law—which is what matters in the long run" (p. 173).

The findings on Institutional Authority highlight the subject nature of this construct. As evidenced by the interview data, what teachers and principals identify as challenges in terms of supports offered by their school is relative to their school context and how they define "a

challenge.” As Institutional Authority was found to be a significant predictor of student achievement, these findings suggest that rather than the actual, finite amount of resources available at (or to) a school, it is teachers’ and principals’ perceptions of the resources and their mindset toward challenges that is critical for improvement. This finding is consistent with Desimone’s (2002) adaptation of policy attribute theory that focuses on *perceptions* of policy attributes rather than their true levels and her argument that “it is district, principal, and teacher knowledge and interpretation of the attributes that directly influence practice” (Desimone, 2002, p. 440).

With regard to Power, I find it noteworthy that a simple two-item indicator was found to have such a significant relationship with academic achievement. This finding is even more astounding when one considers the qualitative data that suggests that higher scores on Power were driven by the presence of rewards rather than penalties—this could theoretically reduce Power to a single item indicator. Mastery was the only model found to have an explicit incentive system (linked to instruction, the most specific aspect of the model) in place. Overall, teachers and principals at all models maintained that rather than sanctions, schools focused on how to support teachers in improving, suggesting that it is the use of Power, specifically in the form of rewards, that is beneficial for school improvement.

Mastery emerged as a leader in the policy attributes, and principals and teachers at Mastery schools were consistent in their descriptions of how the Mastery model is implemented, emphasizing the strength of this improvement model. It is important to note here that while teachers and principals were consistent in their descriptions of the Mastery model, across the two schools key components of the model and how these components were implemented were discussed to varying degrees. The operator-level themes were more predominant in the data on Mastery School A, as teachers and principals offered up richer descriptions of the essential supports and policy attributes and spoke to them at greater length. While the same themes arose within the Mastery School B data, it is my impression that the teachers were far more succinct and cursory in their descriptions, again referencing the same model components and

implementation strategies but not speaking to them in great detail. A possible explanation for the varying extents to which teachers at different schools articulated the Mastery model could be that Mastery School A was a test site for many of the Mastery model's strategies, giving these interviewees more experience with implementation and making the principal and teachers at this school more familiar with the Mastery model. Overall, the interview data that described how Mastery operationalized the policy attributes triangulates findings from teachers' and principals' descriptions of the essential supports, again highlighting relationships (Normative Authority) and adaptability (the bounded freedom within Specificity) as critical factors in Mastery's success. As you may recall, relationships and adaptability were the two predominant themes that emerged in the interview data on the essential supports for the Mastery model (for Leadership and Climate, respectively).

In analyzing the interview data to describe what it looks like to be "high" or "low" on these attributes, a central theme—one that was also found in the qualitative analyses of the essential supports—emerged: consistency, or lack thereof. The policy attribute Consistency was measured on the survey in relation to Professional Capacity, with questions focused on coordination of curriculum and instruction, as well as professional development. This attribute was not significantly related to academic achievement in my quantitative analyses. However, this study's qualitative analyses of both the essential supports and policy attributes provides a different measure of consistency, one that describes the extent to which principals and teachers within and across schools categorized as having the same improvement model, use the same language or express the same perceptions about their model's key components and approach to implementation. This type of consistency provides important context for interpreting findings. For the Universal and Promise Academy models of improvement, low scores in the policy attribute constructs may be a direct reflection of the inconsistencies in teachers' and principals' descriptions of the policy attributes. This would again suggest that Universal schools and Promise Academies in general have weaker models for school improvement. The importance of consistency for interpreting results also suggests that our measures of the policy attributes could

be strengthened by developing a measure of consistency that more accurately captures the variability in how principals and teachers describe different aspects of their school.

Having explored what implementation of the key components of these various school improvement models look like in practice and the themes in implementation that emerge from teachers' and principals' descriptions, I will move on to the final chapter in which these findings will inform suggestions of levers for school improvement.

CHAPTER 6: DISCUSSION

School turnaround as a model of reform is critical to study because, as one of the government-approved and encouraged models for school improvement, turnarounds are becoming increasingly popular in districts across the nation. Prior studies of school turnaround—defined more generally as school improvement—tend to be qualitative in nature and presented in the form of “case studies that look back at factors that may have contributed to the school’s success” (WWC, 2008, p. 6; see also: Calkins et al., 2007). As the popularity of school turnaround as a model of reform grows, it is important to evaluate not only its effectiveness in improving student achievement, but also the key components of the reform and mechanisms through which the reform operates, using these findings to explain the relative successes and challenges of different school improvement models.

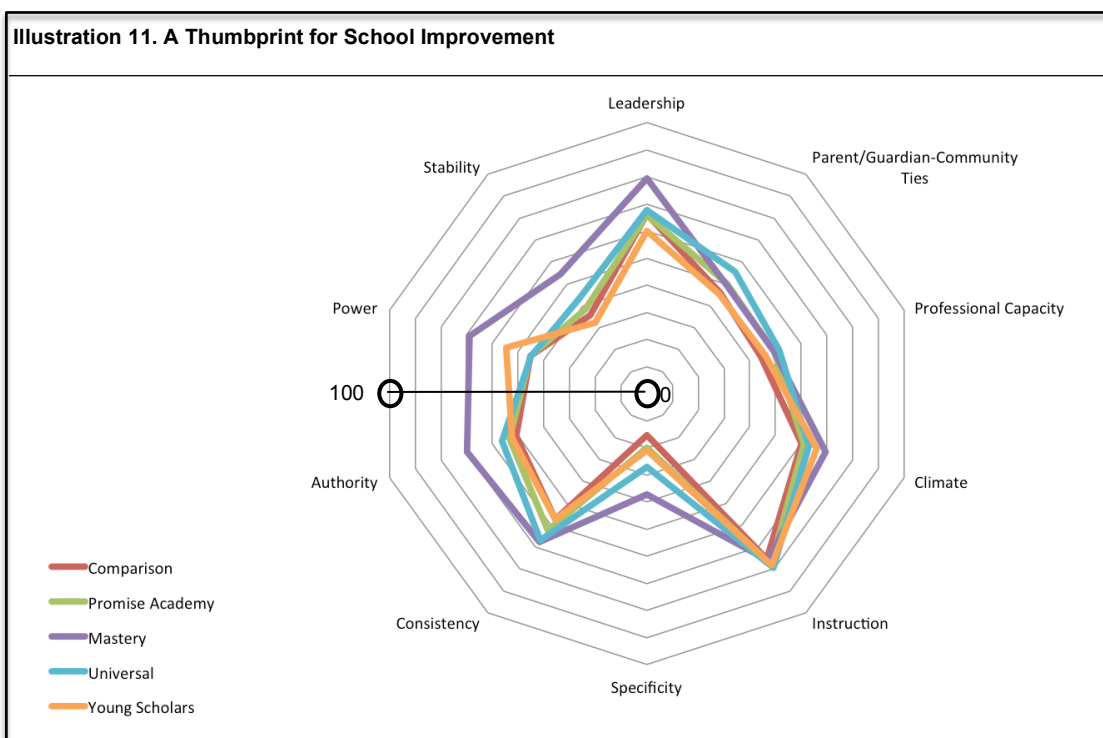
This study makes important contributions to the dearth of research on theory-driven evaluations (Adedokun, Childress, & Burgess, 2011) and demonstrates the benefits of using a theory-driven evaluation when a reform term (such a school turnaround) is over-used, poorly defined, and consequently hindering interpretation of the findings from studies of school reform. Through use of an integrative framework for school improvement that links Bryk and colleagues’ five essential supports for school improvement and Porter and colleagues’ policy attribute theory, this study is able to capture and describe the theories of action for the School District of Philadelphia’s three central turnaround model operators—The District itself (Promise Academies), Mastery Charter Schools, and Universal Companies, and through doing so hypothesize what key points of leverage are for generating success in schools.

Taken together, the models estimated for the quantitative portion of this study offer a fine-grained analysis of the relationship between the implementation and effectiveness of school turnarounds, capturing the complexities of creating change in schools and helping to explain how turnarounds work (i.e., through the essential supports and policy attributes). In revealing patterns in the relationships between policy attributes, essential supports, and academic achievement, this quantitative analysis when considered alongside the extensive interview data from teachers and

principals at Mastery, Universal, and Promise Academy schools offers valuable insight into what features make a difference in the success of school improvement models and why.

This study has covered a lot of ground and presented a number of important insights that can be used to inform the development and refinement of school improvement models in general, and school turnarounds in particular. To emphasize the importance of both the essential supports and the policy attributes and how they all work together to define a school's model of improvement, I propose thinking of these features using a simple heuristic device that captures different school improvement models' variation in terms of key components and implementation strategies: a thumbprint for school improvement (see Illustration 11 on the following page). In keeping with my, and the Shared Solutions Partnerships', goal of generating accessible and useful insights for practice, this thumbprint serves as an efficient mechanism that captures, synthesizes, and frames the study's key findings about the essential supports and policy attributes.

In essence, we can think of each model as having a unique improvement thumbprint that captures its relative successes and challenges with regards to its key components, implementation strategy, and effectiveness. The value in presenting the essential supports and policy attributes as a "thumbprint" for improvement is that such a display equally values both frameworks and creates a very accessible jumping off point for discussions about what various school improvement models look like. This thumbprint can easily be used diagnostically to identify areas on which a school improvement model has room for growth or to highlight areas of strength. It is additionally useful because not only does it portray the relative strengths and weaknesses of the various improvement models in terms of the essential supports and policy attributes, but it also provides a rough mechanism for evaluating the overall presence of an improvement model in general.



To create this graphic, improvement models' scores on each of the essential supports and policy attributes were translated into percentages—making the maximum “score” a school could receive for *each indicator* 100. Each grey decagon represents an increase of 10 percent. The essential supports and policy attributes embody two critical pieces of improvement models: their relative focus areas and how they implement their model. Consequently, in addition to indicating relative strengths and weaknesses on the essential supports, the size of the thumbprints serves as a proxy for the extent to which there is evidence of an actual improvement model. Specifically, the closer a model's thumbprint line is to the graphic's outline, the more evidence of a model there is.

Considering what we have learned about Mastery schools and the Promise Academies in particular, it is not surprising that Mastery (the purple line) has the largest “thumbprint” of the models whereas the Promise Academy model (the green line) has the smallest thumbprint (with the exception of the comparison schools which are not implementing an explicit model of improvement). The interpretation of a small thumbprint as a general lack of a model, and larger

thumbprint as stronger presence of a model is corroborated by my qualitative analyses. The data from Mastery schools was consistent across teachers and principals and schools, suggesting that there is a clear Mastery model for school improvement. On the contrary, data from the Promise Academies was marred with inconsistencies, suggesting that there is no true “Promise Academy” model for school improvement. This finding brings up the important question of what it means to be a model. The distinction between “a model in spirit” (i.e., Promise Academy) as opposed to “a model in action” (i.e., Mastery) is exactly why I believe the integrative framework for school improvement has the potential to play such a critical role in furthering studies of school turnaround—such a framework will allow researchers to look past semantics and identify school improvement models (or the lack of improvement models) based on their defining features, and then draw conclusions about models’ relative effectiveness based on not what they purport to be—their model in spirit—but rather what they are—their model in action.

There is, however, an important catch. Even a “model in action” is not an objective description, as the measures I use to describe models’ key components, understand how they implement these key components, and even to suggest the extent to which there truly is an improvement model present *are based on teacher reports*. The models—both what they are doing and how they are doing it—are defined by teacher perceptions. Which is to say, that the extent to which a model is identified as, for example, being Specific or strong in Climate, is the extent to which teachers perceive the model is Specific or strong in Climate. Teacher perceptions could be influenced by a variety of factors that could either inflate or deflate scores on the essential supports and policy attributes. Consequently, in interpreting scores on these constructs we should be mindful of the “big picture,” and not interpret any construct in isolation. We should also continue to collect qualitative data that provides additional insights that can help to explain teachers’ perceptions of their school and its improvement model.

It is also worth underscoring the fact that results from this study found that improvement models as defined by teachers’ perceptions of the essential supports and policy attributes are positively related to student achievement; this suggests that shifts in messaging around the

essential supports and policy attributes could make a significant difference in achievement even if the “true” levels of these features within models stay constant. For instance, perhaps in a resource-poor school, focusing on the school’s assets could boost Authority (which is positively related to student achievement) without actually acquiring additional resources. This is certainly an area for future research, in particular research that expands measures of the policy attributes for all the essential supports, tests the relationship between essential supports and policy attributes, and seeks to identify and test other contextual factors that may influence teachers’ perceptions of the policy attributes and essential supports.

Suggesting Levers for Improvement

In thinking about levers for improvement, the results of the regression analyses suggest that we look first to the Mastery model as it was consistently predictive of academic achievement and also found to be the strongest and most consistent model according to qualitative analyses. Considering the thumbprints for school improvement within the context of the regression analyses and qualitative findings for this study, we can visually identify five areas of focus for generating school improvement by looking at the Mastery model:

1. Climate
2. Specificity
3. Power
4. Authority
5. Leadership

In Illustration 11 on page 149, we see that Mastery is notably stronger in these five areas. Identification of these five areas as points of leverage for generating school improvement is supported by the results of my regression models that teased out Climate, Specificity, Authority, and Power as being significantly associated with higher levels of academic achievement. It was the Mastery model for school improvement that significantly outperformed all others (including the comparison group) on all of these features, *and* was a significant predictor of academic achievement in *all* regression models estimated. Inclusion of Leadership as a lever for school

improvement makes sense as descriptives, bolstered by qualitative data demonstrate that the Mastery model was strong in Leadership; additionally, the unique features of the Mastery model that emerged in describing the other four points of leverage were also identified in the qualitative data for Leadership.

One may be quick to assume, given the integrative framework for school improvement, that these results make sense on their own that there is not much further interpretation needed—the Mastery model had the highest levels of all the predictive variables (essential supports and policy attributes) found to be positively associated with achievement in my regression models. Consequently, one could simply conclude that it is Climate, Leadership, Specificity, Authority, and Power driving achievement and that because Mastery was strong in all those areas, it is therefore higher performing. However, as the qualitative data suggests, there is more to the Mastery model than simply being stronger on these variables.

In reflecting on the qualitative data and thinking more about why the Mastery model is so successful, two clear themes that transcend these five areas emerge: relationships and adaptability. According to interview data, the Mastery model breeds a reflective culture that is responsive to a school's changing needs as well as feedback from teachers, leaders, and other data points. It seems as though Mastery has mastered the art of being prescriptive, yet responsive and respectful. This implies that being more regimented doesn't preclude a model from being adaptive or sensitive to the human aspect of education. In fact, perhaps it is the highly specific frameworks that Mastery provides that facilitates such adept and coordinated responses to changing students', teachers', and schools' needs—Mastery schools have a clear starting point to build from and guidelines to work within which may allow them to place greater focus on things such as relationship building.

The emergence of themes in the qualitative data that cut across the essential supports and policy attributes contributes to our understanding of different improvement models' successes and challenges, and effectively boils the five areas of focus for improvement down to two key levers for generating improvement evidenced by the Mastery model of improvement:

building relationships and adaptation. I do not think that these levers eclipse the importance of the policy attributes and essential supports, however, I do believe that given their prominence within the qualitative data that speaks to these five areas of focus, schools would be wise to dedicate time and resources to building relationships and being adaptive as they work to bolster Leadership and Climate through Specificity, Authority, and Power. The prevalence and importance of these two themes underscores the value of using qualitative data to supplement quantitative results and suggests that we may benefit by adding more precise measures to the conceptual framework in order to more adequately capture these features in improvement models.

Significance

In seeking to understand what makes each school improvement model pursued by the School District of Philadelphia work (or not work) to improve student achievement, I find that improvement is less about the act of “turning around” a school and more about the attributes different school improvement models possess. By setting semantics aside and instead focusing on the key components and implementation strategies associated with different school improvement models, I believe these results make significant contributions to the limited literature on school turnaround, providing insights into productive points of intervention for struggling schools. As mentioned before, this study covers a lot of ground. Below I outline what I believe are the three key takeaways from my analysis:

1. The importance of moving beyond semantics: In studying school turnaround, it is the theory of action that matters, not nomenclature. By grouping various approaches to school turnaround together, critical differences in outcomes as well as predictors are lost. To conduct the most accurate and meaningful evaluations of school turnaround, researchers must look to the key components and implementation attributes of a model rather than its namesake as these will provide far more insight into whether or not the model successfully generates improvements and how it does so.

2. Essential supports are not as essential as the policy attributes: Through regression analyses, this study finds that *how* an improvement model implements its key components (i.e., the policy attributes) is more important than what its key components (i.e., the essential supports) are. Specificity, Authority, and Power in particular emerged as being significant predictors of student achievement.
3. Qualitative data provides critical insights into what drives the relative effectiveness of different improvement models: This study demonstrated that there are nuances of turnaround models that are not adequately captured by the essential supports and policy attributes. The interview data collected for this study added great value to interpretation and explanation of the quantitative analyses and points to areas where we can improve the integrative framework for school improvement.

Overall, I believe this study's greatest contribution to the education field is its demonstration of the usefulness of an integrative framework for school improvement that combines the essential supports with the policy attributes to create a nuanced understanding of school improvement that not only captures but also helps to explain the successes and challenges of different school improvement models. Previous research on school turnaround has made the mistake of looking for solutions and quick fixes, rather than appreciating the nuance of school turnaround. The integrative framework for school improvement, by focusing in on identifying what models are doing to generate improvement and how they are doing it, provides a useful diagnostic tool that researchers and practitioners alike can use to inform their understanding of school improvement, make changes to current models, and develop new ones. Moving forward, I think this framework will help to transition research away from simplistic questions such as: Does this model improve student achievement?, to more meaningful questions such as: What are the strengths associated with this approach to improvement, how do they tie in to its effectiveness, and how can we leverage them to improve student achievement?

Joe Bower (2015) writes: "the root word for assessment is *assidere* which literally means 'to sit beside.' Assessment is not a spreadsheet – it's a conversation." The assessment of school

turnaround efforts in the School District of Philadelphia presented in this study does not intend to make sweeping claims about school improvement or offer the next silver bullet for public schools. Instead, this study offers a critical and thoughtful, data-driven framework for thinking about how we can generate improvements in schools. This study and its findings serve as a starting point for important conversations about what school improvement looks like and how we can best facilitate it in our public schools. While providing compelling findings and insights into the inner-workings of Philadelphia's central approaches to turnaround that can undoubtedly be used to inform improvement to existing models and development of new ones, this study is not the end of the conversation about school turnaround in Philadelphia, it is just the beginning.

APPENDICES

Appendix A: Site Visiting Scheduling Documents

Initial Recruitment E-mail

Dear Principal LAST NAME,

You are receiving this email because your school has been identified by The School District of Philadelphia–Penn Graduate School of Education Shared Solutions Partnership (SDP-Penn GSE Shared Solutions) for participation in an ongoing study of school improvement efforts in the District.

In addition the District-wide surveys, we will be conducting interviews and observations to aide in understanding the school improvement process.

We are asking for your and your staff's assistance in this process, which will include a Comprehensive School Site Visit that is expected to last 4-5 hours and include the following activities conducted by two or more trained Shared Solutions staff.

1. A School/Campus Walk-Through (30 minutes)
2. A Classroom Visit (30-45 minutes)
3. 1 Principal Interview (45-60 minutes)
4. 4 Teacher Interviews (45 minutes each)

If you would like to include in your email a member of your team other than yourself who will serve as a coordinator for the logistics of the visit, please do so and we will follow up with that person.

Your cooperation is greatly appreciated, and we look forward to meeting with you. On the day of our visit, the Shared Solutions team will provide your staff with donuts. If you have any questions, please contact (X).

Shared Solutions has the goal of connecting research to practice, and your participation in the

process is a critical part of reaching this goal. To learn more about the Shared Solutions Partnership, please visit our website at <http://www.gse.upenn.edu/partnership/>

Thank you.

Name

Title

Phone Number, etc.

Follow-up E-mail with Itinerary

Dear Principal NAME,

We are looking forward to visiting SCHOOL NAME on Day, Month, Date. To help facilitate the logistics of the visit, I have attached an itinerary template. We ask that you help us to coordinate interview times, locations, and personnel. We have left most of the times blank to allow you to synchronize the itinerary with the school's daily schedule.

Please return this completed itinerary to us by DATE <one week from sent e-mail>.

All the best,

Name

Title

Phone Number, etc.

Itinerary**School Name****Shared Solutions Comprehensive School Site Visit Schedule****Date:** Day of week, month, year**Check-in and School Walk-Through**

9:00 AM CHECK IN AT MAIN OFFICE

9:10 AM SCHOOL/CAMPUS WALK-THROUGH

Classroom Visit Please arrange for us to visit a class for the entire duration of the class period. If possible, we would like to observe a 3rd grade English Language Arts class.

CLASSROOM VISIT

Class Grade and Subject:

Teacher Name:

Room:

Principal Interview (45-60 minutes) Please arrange for us to meet with you.

PRINCIPAL INTERVIEW

Name:

Room:

Teacher Interviews (45 minutes each) Please arrange for us to meet *individually* with **4 teachers**. We would like to interview teachers that meet the following criteria, ideally *during their prep period, before or after school, or any time during the day that might be convenient*:

1. A teacher who serves in a leadership position (e.g., a teacher who serves on a school leadership committee, a grade-group leader, etc.).

2. A 3rd grade teacher
3. A teacher in lower-elementary (Grades K-2)
4. A teacher in upper-elementary (Grades 4-8)

If possible, please select one new teacher and one teacher who has been employed at this school since BEFORE turnaround

Teacher Name:

Room:

Teacher Name:

Room:

Teacher Name:

Room:

Teacher Name:

Room:

Appendix B: 2014-2015 District-wide Teacher Survey

A copy of the Shared Solutions Teacher District-wide survey administered by the School District of Philadelphia *online* to all teachers in Spring 2015 begins on next page. It is available at:
http://schools-surveys.philasd.org/files/surveys/2015/Teacher_Survey.pdf.

2014-2015 District-wide Teacher Impact Survey**Welcome**

Dear Teacher,

Thank you for participating in this year's survey. Your feedback is invaluable to your school. Please note that your responses to the following items are CONFIDENTIAL. Your name will NOT be included in any results.

Sincerely,

**Office of Research and Evaluation
The School District of Philadelphia**

* 1. Do you teach students in your current role?

☐ Yes

☐ No

2014-2015 District-wide Teacher Impact Survey**General Instructions**

2. Please think about one class you teach during the day and write down the name of that class (grade, subject, and period) in the box below. If you are an elementary school teacher, please write "Homeroom." When taking the remainder of this survey, please use this class as your reference (i.e., when you are answering items, think specifically about the class your wrote down).

2014-2015 District-wide Teacher Impact Survey

Instruction

3. How often do the following statements reflect what occurs in your classroom?

	Never	Rarely	Occasionally	Most or all of the time
My students complete their assigned work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students explain material to their classmates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students reflect back on what they have learned.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students tell me their work is too easy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students are motivated to learn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students are interested in what we do in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students are competitive with one another about their grades.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My class is interrupted by announcements or messages from the office or colleagues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students influence decisions regarding learning activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students misbehave in my classroom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The learning activities in my class are relevant to my students' lives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I set learning goals that are suitable for each and every one of my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use assessment data to guide my instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I call on all of my students, even if they don't volunteer to answer questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I convey to each of my students that I care about them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I provide students with extra help if they need it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I reflect back on the impact of each lesson I teach.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am passionate about the subject(s) I teach.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

Instruction

4. How often do the following statements reflect what occurs in your classroom?

	Never	Rarely	Occasionally	Most or all of the time
My students treat me with respect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students treat each other with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students consistently attend my class(es).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students ask me questions when they need help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students are more focused on grades than learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students are aware of different strategies for learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students are good at using their time effectively in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my students find their schoolwork challenging, they give up.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students work hard in my classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my class, my students are learning what they need to be successful in life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I treat every student with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage each of my students to work hard.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I set high expectations for every student.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident in my knowledge of the Common Core.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident in my ability to teach to the Common Core.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am pleased with the quality of the education I am providing my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

School Leadership

Please mark the extent to which you agree or disagree with each of the following statements.

5. The principal at this school:

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Communicates a clear mission for our school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sets high standards for student learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sets high standards for teachers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sets clear expectations for teachers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provides me with constructive feedback based on observation(s) of my teaching (formally or informally).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

School Leadership

Please mark the extent to which you agree or disagree with each of the following statements.

6. The principal at this school:

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Is committed to shared decision-making.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Works to create a sense of community in this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotes parent, guardian, and community involvement in the school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creates buy-in among faculty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourages students to be involved in the school community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

School Leadership

7. How much control do **YOU** have over the following **in your class** (if you would like to have more control over any of the following, please check the box at the end of the row **in addition** to your rating of how much control you currently have):

	None	A little	Some	A great deal	I would like to have more control over this than I currently have
Determining course objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Choosing books and other instructional materials					
Selecting content, topics, and skills to be taught	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selecting the sequence in which topics are covered					
Setting the pace for covering topics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Determining how classroom space is used					
Setting standards of behavior in my classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Choosing the teaching methods and strategies I use with my students					
Determining the amount of homework to be assigned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Choosing criteria for grading students					
Choosing the evaluation and assessment activities used in my class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2014-2015 District-wide Teacher Impact Survey

School Environment

8. To what extent do you agree or disagree with the following statements?

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)	N/A
My school has clear strategies for improving instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My school adheres to a no-excuses approach for student learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My school has a culture of using data to drive student-level interventions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Many new programs come and go in my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is consistency in curriculum, instruction, and learning materials among teachers <u>in the same grade level</u> at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum, instruction, and learning materials are well coordinated <u>across different grade levels</u> at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teacher morale is high at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers at my school have high expectations for students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers at my school support the idea that all students can learn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers feel responsible when students in my school fail academically.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most of my colleagues share my beliefs and values about what the central mission of the school should be.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My school or District/CMO recognizes or rewards me based on my teaching or student achievement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My school or District/CMO penalizes me based on my teaching or student achievement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

School Environment

9. To what extent do you consider each of the following factors a challenge to student learning in your school?

	Not a challenge	A slight challenge	A moderate challenge	A great challenge
Frequent changes in school priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Principal turnover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teacher turnover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shortage of highly qualified teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers teaching a subject or grade outside of their certification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of high-quality professional development opportunities for teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shortage of instructional support staff (e.g., teaching aids and reading specialists)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shortage of other support staff (e.g., nurses, counselors, and security)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students transferring in or out of the school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student absenteeism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student tardiness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of teacher planning time built into the school day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pressure to perform well on the state standardized tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of support for teaching special education students (i.e., students with IEPs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of support for teaching English Language Learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of school resources to provide the extra help for students who need it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School crime/safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problems with student transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of computers or other technological resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

School Environment

10. To what extent do you consider each of the following factors a challenge to student learning in your school?

	Not a challenge	A slight challenge	A moderate challenge	A great challenge
Frequent changes in district initiatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighborhood crime/safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students have inadequate basic skills or prior preparation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of support from parents and guardians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural differences between home and school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

School Environment

11. To what extent do you consider each of the following factors a challenge to student learning in your classroom?

	Not a challenge	A slight challenge	A moderate challenge	A great challenge
Insufficient class time to cover all of the curriculum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wide range of student abilities in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate textbooks, materials, or other non-technological instructional resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of computers or other technological resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student absenteeism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

School Environment

12. To what extent do you feel respected by:

	Not at all respected	A little respected	Somewhat respected	Respected a great deal	Don't know	Does not apply
The School Reform Commission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
District/Charter administrators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your principal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers in your school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other school staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents/Guardians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

School Environment

13. At your school, to what extent are the following types of bullying a problem?

	Not at all	A little	Some	A great extent
Principal-Teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Principal-Student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teacher-Teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teacher-Student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student-Student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student-Teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

Parent-Community Ties

14. Think about a "typical" student in the class you identified at the beginning of the survey. During this academic year, how often did you do the following for that student?

	Never	1-4 times a year	5-7 times a year	Monthly or about monthly (8-9 times a year)	Weekly or about weekly	Daily or almost daily
Suggest activities that his or her parents and guardians can do to complement activities in the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact his or her parents and guardians about his or her behavior problems or when he or she breaks school rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact his or her parents and guardians when he or she was struggling academically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact his or her parents and guardians about his or her achievements and successes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have a conference with his or her parents and guardians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Invite his or her parents and guardians to be involved in class (e.g., attend special events, volunteer in the classroom, chaperone field trips)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Send emails, newsletters, or notes home telling parents and guardians what he or she has been learning and doing in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

Professional Capacity

15. Please mark the extent to which you agree or disagree with each of the following statements.

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
I am encouraged to try new teaching approaches in my classrooms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am encouraged to innovate to improve my teaching.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to question other's views on issues of teaching and learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am expected to continually learn and seek out new ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am free to be creative in the teaching methods and strategies I use in the classroom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. During a typical week, how much time is formally set aside for collaborating with one or more teachers during work hours?

- ☐ No time
- ☐ Less than 30 minutes
- ☐ 30 to 59 minutes
- ☐ 60 to 119 minutes
- ☐ 2 to 4 hours
- ☐ More than 4 hours

2014-2015 District-wide Teacher Impact Survey

Professional Capacity

17. How often, if at all, do you collaborate with other teacher(s) or other school staff at your school to address the following topics?

	Never or almost never	1-4 times a year	5-7 times a year	Monthly or about monthly (8-9 times a year)	Weekly or about weekly	Daily or almost daily	N/A
Classroom management strategies/interventions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying, developing, or revising curricular materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effective instructional strategies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The individual learning needs of students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coordination of instruction <u>within grade</u> levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coordination of instruction <u>across grade</u> levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coordination of instruction for a particular student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. How often do you do the following (formally or informally):

	Never	1-4 times a year	5-7 times a year	Monthly or about monthly (8-9 times a year)	Weekly or about weekly	Daily or almost daily	N/A
Have teachers observe your classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Observe other teachers' classrooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

Professional Capacity

19. For approximately how many hours did you receive professional development on the following topics during the 2014-2015 school year?

	Less than 1 hour	1-4 hours	5-8 hours	9-16 hours	17 or more hours
Math content and/or how students learn math	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading content and/or how students learn reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Common Core State Standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional strategies for English Language Learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructional strategies for Special Education Students (e.g., students with IEPs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to analyze data to plan instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Classroom management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parent involvement/engagement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Danielson Framework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Response to Instruction and Intervention (RtII)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blended Learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

Professional Capacity

20. How often did your professional development activities:

	Never	Rarely	Occasionally	Most or all of the time
Offer opportunities to interact/work with teachers from your school, department, or grade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide opportunities for analyzing student work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide opportunities for you to be observed teaching and receive feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use a lecture or stand-and-deliver format	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use a small group discussion/problem-solving format	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have periodic follow-up throughout the school year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. How often were your professional development activities:

	Never	Rarely	Occasionally	Most or all of the time
Consistent with your school's mission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integrated/linked with your daily lessons/curricula	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Isolated and/or unconnected to other professional development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explicitly supported and/or encouraged by your principal or other school leaders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consistent with school and district policies (such as state standardized testing and standards)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

Instruction

We know that teachers use a variety of strategies in their classroom instruction and that many different strategies can be effective for classroom learning. Please respond to the following items regarding the instructional strategies you use.

22. How often do students in your class do the following?

	Never	Less than once a month	1-3 times per month	1-2 times per week	3-4 times per week	Every day
Work in small groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learn or practice basic facts, concepts, and procedures related to a topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work independently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engage in hands-on activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Help other students learn content (for example, peer tutoring or shared reading)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work on extended learning activities (for example, portfolios, writing or projects)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Answer multiple-choice, fill-in-the blank, or true-false questions (for example worksheets, quizzes, tests, or warm-ups)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Apply their knowledge to new situations, concepts, or problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critique, evaluate, or synthesize	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receive direct instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in student-led discussion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Present work to the class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Never	Less than once a month	1-3 times per month	1-2 times per week	3-4 times per week	Every day
Engage in call and response	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use a personal computing device (for example, computers or tablets)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in self- reflection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey**Assessment**

23. This year, approximately how many hours of class time did you spend on practice tests and test-taking strategies for state standardized tests (e.g., PSSA, Keystone)?

24. How do state standardized tests and preparing for them affect your class?

2014-2015 District-wide Teacher Impact Survey

Technology

25. When I or my students access online content through my school's Internet connection, we encounter slow connectivity speeds:

- ☐ Never
- ☐ Rarely
- ☐ Occasionally
- ☐ Most or all of the time

26. How do students **primarily** access technology in your school?

- ☐ Computer lab
- ☐ Mobile laptop or tablet cart
- ☐ Desktops, laptops, or tablet computers located in classrooms
- ☐ Personal devices (e.g. their smartphones, laptops from home)
- ☐ None of the items listed here are available to students in my school
- ☐ Other (please specify)

2014-2015 District-wide Teacher Impact Survey

Technology

27. How often do students in your classroom use technology for the following:

	Never	Rarely	Occasionally	Most or all of the time
Learning material for the first time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reviewing material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Remediation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enrichment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing classwork or homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaborating with other students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. How often do you:

	Never	Rarely	Occasionally	Most or all of the time
Use student data from technology sessions to personalize instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have students use cloud-based software	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have students use computer-based learning programs that <u>adapt to student learning</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have students use computer-based learning programs that <u>guide students through a fixed path</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have students use standard software (e.g., Microsoft Office) or Web browsers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. Please identify the blended learning professional development opportunities you would like to see offered at your school in the future. Select all that apply.

Classroom management

Data sharing and student privacy

How to use different blended learning models

How to use hardware for blended learning

How to use software for blended learning

How to integrate blended learning into the existing curriculum

How to conduct real-time assessments/checks for understanding

How to differentiate instruction using blended learning

I am not interested in receiving professional development regarding blended learning

Other (please specify)

2014-2015 District-wide Teacher Impact Survey

* 30. Do you currently teach at a Charter school?

☐ Yes

☐ No

2014-2015 District-wide Teacher Impact Survey

Response to Instruction and Intervention (RtII)

31. With regard to **RtII**, how often do you:

	Never	1-4 times a year	5-7 times a year	Monthly or about monthly (8-9 times a year)	Weekly or about weekly	Daily or almost daily	Does not apply
Review screening data to identify students in need of intervention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review diagnostic data to identify individual areas of concern	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design intervention plans for students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review progress-monitoring data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Move students out of intervention plans to new intervention plans based on progress-monitoring data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review overdue tasks in the RtII Online Documentation System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. Please rate the ease of completing the following tasks on the RtII Online Documentation System.

	Very Difficult	Difficult	Easy	Very Easy	I have never done this task.
Choosing a plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating a plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tracking intervention delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitoring student progress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adding students to a plan/removing students from a plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey

Response to Instruction and Intervention (RtII)

33. To what extent have the following been challenges to the implementation of RtII at your school?

	Not a challenge	A slight challenge	A moderate challenge	A great challenge
A lack of understanding of RtII among school staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A lack of understanding of how special education students fit into the RtII process among school staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A lack of turn-around training on RtII	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A lack of buy-in for RtII among school staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A lack of available assessment tools (e.g., screeners or progress monitoring tools)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A lack of training in assessment tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A lack of collaboration time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A lack of available intervention programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problems with rostering for interventions/intervention programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2014-2015 District-wide Teacher Impact Survey**Additional Feedback**

34. If you have any additional feedback you would like to provide, please write it in the box below. Thank you!

Appendix C: Survey Construct Questions and Items

School Leadership

A. Expectations & Feedback

Please mark the extent to which you agree or disagree with each of the following statements. The principal at this school:

Scale: Strongly Disagree, Disagree, Agree, Strongly Agree

Communicates a clear mission for our school.

Sets high standards for student learning.

Sets high standards for teachers.

Sets clear expectations for teachers.

Provides me with constructive feedback based on observation(s) of my teaching (formally or informally).

B. Inclusive Leadership

Please mark the extent to which you agree or disagree with each of the following statements. The principal at this school:

Scale: Strongly Disagree, Disagree, Agree, Strongly Agree

Is committed to shared decision-making.

Works to create a sense of community in this school.

Promotes parent, guardian, and community involvement in the school.

Creates buy-in among faculty.

Encourages students to be involved in the school community.

Parent/Guardian-Community Ties

Think about a "typical" student in the class you identified at the beginning of the survey. During this academic year, how often did you do the following for that student?

Scale: Never, 1–4 times a year, 5–7 times a year, Monthly or about monthly (8 or 9 times a year).

Weekly or about weekly, Daily or almost daily

Suggest activities that his or her parents and guardians can do to complement activities in the classroom

Contact his or her parents and guardians about his or her behavior problems or when he or she breaks school rules

Contact his or her parents and guardians when he or she was struggling academically

Contact his or her parents and guardians about his or her achievements and successes

Have a conference with his or her parents and guardians

"Invite his or her parents and guardians to be involved in class (e.g., attend special events, volunteer in the classroom, chaperone field trips)"

Send emails, newsletters, or notes home telling parents and guardians what he or she has been learning and doing in class

Professional Capacity

A. Innovation

Please mark the extent to which you agree or disagree with each of the following statements.

Scale: Strongly Disagree, Disagree, Agree, Strongly Agree

I am encouraged to try new teaching approaches in my classrooms.

I am encouraged to innovate to improve my teaching.

I am willing to question other's views on issues of teaching and learning.

I am expected to continually learn and seek out new ideas.

I am free to be creative in the teaching methods and strategies I use in the classroom.

B. Peer Collaboration

1. During a typical week, how much time is formally set aside for collaborating with one or more teachers during work hours?

Scale: No time, Less than 30 minutes, 30 to 59 minutes, 60 to 119 minutes, 2 to 4 hours, More than 4 hours

2. How often, if at all, do you collaborate with other teacher(s) or other school staff at your school to address the following topics?

Scale: Never, 1–4 times a year, 5–7 times a year, Monthly or about monthly (8 or 9 times a year), Weekly or about weekly, Daily or almost daily

Classroom management strategies/interventions

Identifying, developing, or revising curricular materials

Effective instructional strategies

The individual learning needs of students

3. How often do you do the following (formally or informally):

Scale: Never, 1–4 times a year, 5–7 times a year, Monthly or about monthly (8 or 9 times a year),
Weekly or about weekly, Daily or almost daily

Have teachers observe your classroom.

Observe other teachers' classrooms.

C. Quality of PD: Content Focus and Duration

For approximately how many hours did you receive professional development on the following topics during the 2014-2015 school year?

Scale: Less than 1 hour, 1-4 hours, 5-8 hours, 9-16 hours, 17 or more hours

Math content and/or how students learn math

Reading content and/or how students learn reading

The Common Core State Standards

Instructional strategies for English Language Learners

"Instructional strategies for Special Education

Students (e.g., students with IEPs)"

How to analyze data to plan instruction

Classroom management

Parent involvement/engagement

Danielson Framework

Response to Instruction and Intervention (RtII)

Blended Learning

D. Quality of PD: Active Learning

How often did your professional development activities:

Scale: Never, Rarely, Occasionally, Most or all of the time

Offer opportunities to interact/work with teachers from my school, department, or grade

Provide opportunities for analyzing student work

Provide opportunities for me to be observed teaching and receive feedback

Use a lecture or stand-and-deliver format

Use a small group discussion/problem-solving format

Have periodic follow-up throughout the school year

School Climate

A. Bullying

At your school, to what extent are the following types of bullying a problem?

Scale: A great extent, Some, A little, Not at all

Principal-Teacher

Principal-Student

Teacher-Teacher

Teacher-Student

Student-Student

Student-Teacher

B. Respect

1. To what extent do you feel respected by:

Scale: Not at all respected, A little respected, Somewhat respected, Respected a great deal,

Don't know, Does not apply

The School Reform Commission

District/Charter Operator administrators

Your principal

Teachers in your school

Other school staff

Parents/guardians

Students

2. How often do the following statements reflect what occurs in your classroom?

Scale: Never, Rarely, Occasionally, Most or all of the time

My students treat me with respect

I treat every student with respect.

My students treat each other with respect.

C. Challenges

1. To what extent do you consider each of the following factors a challenge to student learning in your classroom?

Scale: A great challenge, A moderate challenge, A slight challenge, Not a challenge

Wide range of student abilities in class

Student behavior

2. How often do the following statements reflect what occurs in your classroom?

Scale: Never, Rarely, Occasionally, Most or all of the time

My class is interrupted by announcements or messages from the office or colleagues.

Students misbehave in my classroom.

3. To what extent do you consider each of the following factors a challenge to student learning in your school?

Scale: A great challenge, A moderate challenge, A slight challenge, Not a challenge

Teachers teaching a subject or grade outside of their certification

School crime/safety

Problems with student transportation

Neighborhood crime/safety

Students have inadequate basic skills or prior preparation

Cultural differences between home and school

Instruction

A. Conceptual

We know that teachers use a variety of strategies in their classroom instruction and that many different strategies can be effective for classroom learning. Please respond to the following items regarding the instructional strategies you use. How often do students in your class do the following?

Scale: Never, Less than once a month, 1-3 times per month, 1-2 times per week, 3-4 times per week, Every day

Engage in hands-on activities

Help other students learn content (for example, peer tutoring or shared reading)

Work on extended learning activities (for example, portfolios, writing or projects)

Apply their knowledge to new situations, concepts, or problems

Critique, evaluate, or synthesize

Participate in student-led discussion

Present work to the class

B. Procedural

We know that teachers use a variety of strategies in their classroom instruction and that many different strategies can be effective for classroom learning. Please respond to the following items regarding the instructional strategies you use. How often do students in your class do the following?

Scale: Never, Less than once a month, 1-3 times per month, 1-2 times per week, 3-4 times per week, Every day

Learn or practice basic facts, concepts, and procedures related to a topic

Work independently

Answer multiple-choice, fill-in-the blank, or true-false questions (for example worksheets, quizzes, tests, or warmups)

Receive direct instruction

Engage in call and response

C. Student Engagement

How often do the following statements reflect what occurs in your classroom?

Scale: Never, Rarely, Occasionally, Most or all of the time

My students complete their assigned work.

My students are motivated to learn.

My students are interested in what we do in class.

If my students find their schoolwork challenging, they give up.

Students work hard in my classes.

My students consistently attend my class(es).

My students ask me questions when they need help.

D. Teacher Self-Reflection

How often do the following statements reflect what occurs in your classroom?

Scale: Never, Rarely, Occasionally, Most or all of the time

The learning activities in my class are relevant to my students' lives.

I set learning goals that are suitable for each and every one of my students.

I convey to each of my students that I care about them.

I provide students with extra help if they need it.

I reflect back on the impact of each lesson I teach.

I am passionate about the subject(s) I teach.

In my class, my students are learning what they need to be successful in life.

I encourage each of my students to work hard.

I set high expectations for every student.

I am confident in my knowledge of the Common Core.

I am confident in my ability to teach to the Common Core.

I am pleased with the quality of the education I am providing my students

Specificity

How much control do YOU have over the following in your class:

Scale: None, A little, Some, A great deal

Determining course objectives

Choosing books and other instructional materials

Selecting content, topics, and skills to be taught

Selecting the sequence in which topics are covered

Setting the pace for covering topics

Determining how classroom space is used

Setting standards of behavior in my classroom

Choosing the teaching methods and strategies I use with my students

Determining the amount of homework to be assigned

Choosing criteria for grading students

Choosing the evaluation and assessment activities used in my class

Consistency

A. Curriculum and Instruction

1. To what extent do you agree or disagree with the following statements?

Scale: Strongly Disagree, Disagree, Agree, Strongly Agree

There is consistency in curriculum, instruction, and learning materials among teachers in the same grade level at my school.

Curriculum, instruction, and learning materials are well coordinated across different grade levels at my school.

2. How often, if at all, do you collaborate with other teacher(s) or other school staff at your school to address the following topics?

Scale: Never, 1–4 times a year, 5–7 times a year, Monthly or about monthly (8 or 9 times a year), Weekly or about weekly, Daily or almost daily

Coordination of instruction within grade levels

Coordination of instruction across grade levels

Coordination of instruction for a particular student

B. Professional Development

How often were your professional development activities:

Scale: Never, Rarely, Occasionally, Most or all of the time

Consistent with my school's mission

Integrated/linked with my daily lessons/curricula

Isolated and/or unconnected to other professional development

Explicitly supported and/or encouraged by my principal or other school leaders

Consistent with school and district policies (such state standardized testing and standards)

Authority

A. Institutional Authority

1. To what extent do you consider each of the following factors a challenge to student learning in your school?

Scale: A great challenge, A moderate challenge, A slight challenge, Not a challenge

Shortage of highly qualified teachers

Lack of high-quality professional development opportunities for teachers

Shortage of instructional support staff (e.g. teacher aids and reading specialists)

Shortage of other support staff (e.g. nurses, counselors, and security)

Lack of teacher planning time built into the school day

Lack of support for teaching special education students (i.e., students with IEPs)

Lack of support for teaching English Language Learners

Lack of school resources to provide the extra help for students who need it

Lack of computers or other technological resources

Lack of support from parents and guardians

2. To what extent do you consider each of the following factors a challenge to student learning in your classroom?

Scale: A great challenge, A moderate challenge, A slight challenge, Not a challenge

Insufficient class time to cover all of the curriculum

Inadequate textbooks, materials, or other non-technological instructional resources

Lack of computers or other technological resources

B. Normative Authority

1. To what extent do you agree or disagree with the following statements?

Scale: Strongly Disagree, Disagree, Agree, Strongly Agree

My school has clear strategies for improving instruction.

Teacher morale is high.

2. To what extent do you agree or disagree with the following statements?

Scale: Strongly Disagree, Disagree, Agree, Strongly Agree

Teachers at my school have high expectations for students.

Teachers at my school support the idea that all students can learn.

Teachers feel responsible when students in my school fail academically.

Most of my colleagues share my beliefs and values about what the central mission of the school should be.

Power

To what extent do you agree or disagree with the following statements?

Scale: Strongly Disagree, Disagree, Agree, Strongly Agree

My school or District/CMO recognizes or rewards me based on my teaching and/or student achievement.

My school or District/CMO penalizes me based on my teaching and/or student achievement.

Stability

A. Mobility/turnover

1. To what extent do you consider each of the following factors a challenge to student learning in your school?

Scale: A great challenge, A moderate challenge, A slight challenge, Not a challenge

Frequent changes in school priorities

Principal turnover

Teacher turnover

Students transferring in or out of the school

Frequent changes in district initiatives

2. To what extent do you agree or disagree with the following statements?

Scale: Strongly Disagree, Disagree, Agree, Strongly Agree

Many new programs come and go in my school.

B. Student absenteeism/tardiness

1. To what extent do you consider each of the following factors a challenge to student learning in your school?

Scale: A great challenge, A moderate challenge, A slight challenge, Not a challenge

Student absenteeism

Student tardiness

2. To what extent do you consider each of the following factors a challenge to student learning in your classroom?

Scale: A great challenge, A moderate challenge, A slight challenge, Not a challenge

Student absenteeism

Appendix D: Focus Group Instructions

Shared Solutions Instrument Focus Groups

February 11, 2015

****Facilitators:** Please take detailed notes on participants' feedback, and remember to add all notes from your focus group to the appropriate Google Doc linked to here by Monday, February 16, 2015. (Kirsten will also e-mail you with the link).

Note: To ensure that we get feedback on all items, focus groups will start at different sections of the survey—Kirsten will let you know which section you are to begin with. If you have time, you may go through the entire survey with your group. Please plan to save approximately 10 minutes for discussion about general survey administration processes at the end of the focus group session.

Instructions

Introduce yourself to the group and explain that the purpose of this focus group is to go through the X (teacher, principal, parent) survey that the District will be administering in the spring and get feedback on the questions—Do they make sense? Are there any answer choices that are missing? Is there anything you would change about the question, or series of questions?

Tell your group that in order to learn about how we can improve the survey, we are going to ask them to answer questions from the survey and provide us with their feedback. Explain that for each question or set of questions, the group will first have an opportunity to read the question(s) and mark their response(s). Once everyone has had the opportunity to do that, we will discuss the question(s) and answer choices as a group.

Tell the group that it is okay to mark-up the survey document with their answers and comments, and indicate that you will collect the surveys before they leave the room.

To get started with the feedback process, ask your group to read the first question(s) and mark their response(s). *Use your judgment as to how many questions to ask them to do at once* – if the questions are short with only one or two sub-items, you can ask them to complete 2-4 and then discuss. If you have one of the longer questions with many sub-items, it is probably best to ask them to answer just one question, and then discuss.

Questions to ask about each survey question:

1. Was there anything confusing about the question?
 - a. Did you understand the terminology used in the question, and do you think others would understand it?
2. Did you have any trouble fitting your answer with the response categories?
 - a. How did you figure out which response category to choose?
 - b. If there were any issues with the response categories, ask do you have a recommendation for how to change the response categories – that is, what is the frequency with which you engage in this activity? Or, what type of scale do you think better reflects how you would rate this dimension?
3. If applicable to the question: Are there any items that are missing from the question? For example, when we ask about opportunities for parent-involvement at your school is there any activity in particular you think is important that we do not include?
4. If applicable to the question:
 - a. For parents:
 - i. What teacher or teachers were you thinking of when you answered this question?
 1. If you have more than one child attending school in the District, which teacher or teachers would you think about when answering this question? (e.g., the one who's ID you used to log-

in?) Would you take the survey multiple times for each of your children?

2. Would it be easier if we asked you to choose one teacher – for example, your child’s “main” teacher, or homeroom teacher, or math teacher?

ii. If the question asked generally about the teachers of your children, how would you determine which response category to choose (e.g., would you pick one teacher to think of, would you try to “average” your response across teachers?)

b. For students:

i. What class were you thinking of when you answered this question?

(note, that they may be averaging across all classes)

ii. What teacher or teachers were you thinking of when you answered this question?

c. For teachers:

i. What class or classes were you thinking of when you answered this question?

ii. Is it easier to think of one specific class (e.g., your first class of the day, your homeroom)?

iii. If the question asked about all of your classes, how would you choose a response category (e.g., would you average across classes, think of your “typical” class, etc.?)

Questions about Survey Administration

1. What do you suggest is a good “window” of time for completing the survey (for example, one week, two weeks, a month) – a longer window allows more time, but a shorter window may be more of an incentive?
2. We know that the PSSA testing is in April. Thinking about the window of time for completing the survey as we just discussed, would you recommend administering the survey before, during, or after the PSSAs? What do you think would be the most convenient time during the spring for launching the surveys?
3. What can the District and/or your principal do to facilitate your completing the survey? For example, the District is considering using time during District-wide professional development as an opportunity for teachers to take it.

Final Question: Is there anything about this survey that you would like to comment on before we wrap up?

Please give me the copies of the survey before you leave – they are in draft form and are not ready to be shared outside of this room, and we want to examine your responses. Thank you for your participation.

****Facilitators:** Please, remember to add all notes from your focus group to the appropriate Google Doc by Monday, February 16, 2015.

Appendix E: Target Sample Response Rates

Comparison Group				
ULCS Code	Matching ID	School Name	TeacherParticipationRate	TeacherParticipationCount
7310	A	FELTONVILLE INTERMEDIATE	11.90	5
2390	B	ROBERT MORRIS SCHOOL	31.25	10
2370	C	DELAPLAINE MCDANIEL SCHOOL	38.46	15
5170	D	DEBURGOS, J. ELEMENTARY	58.70	27
5680	E	MUNOZ-MARIN, HON LUIS SCHOOL	60.38	32
7510	F	BETHUNE, MARY MCLEOD SCHOOL	69.77	30
7300	G	FRANCIS HOPKINSON SCHOOL	70.91	39
5330	H	WILLIAM H. HUNTER SCHOOL	72.22	26
6350	I	PENNYPACKER, SAMUEL SCHOOL	73.91	17
5340	J	JAMES R. LUDLOW SCHOOL	75.00	18
7380	K	MC CLURE, ALEXANDER K. SCHOOL	75.00	30
1340	L	HENRY C. LEA SCHOOL	75.68	28
1460	M	ANDERSON, ADD B. SCHOOL	76.67	23
4470	N	WRIGHT, RICHARD R. SCHOOL	77.42	24
7110	O	HARDING, WARREN G. MIDDLE SCH	77.78	42
5470	P	CRAMP, WILLIAM SCHOOL	83.33	30
1410	Q	JAMES RHOADS SCHOOL	84.85	28
1490	R	BLANKENBURG, RUDOLPH SCHOOL	85.71	24
7320	S	HOWE, JULIA WARD SCHOOL	95.00	19

Treatment Group				
ULCS Code	Matching ID	School Name	TeacherParticipationRate	TeacherParticipationCount
3407	F	MASTERY CHARTER @ HARRITY	14.06	9
3408	M	MASTERY CHARTER @ MANN	17.65	6
3412	R	YOUNG SCHOLARS @ F. DOUGLASS	22.45	22
3426	P	MASTERY CHARTER @ PASTORIUS	25.00	10
3425	J	YOUNG SCHOLARS @ KENDERTON	47.54	29
1200	Q	BARRY, JOHN ELEMENTARY SCHOOL	50.00	22
3411	G	UNIVERSAL CHARTER @ DAROFF	54.76	23
7730	O	CLEMENTE, ROBERTO MIDDLE SCHL	57.58	19
1360	K	MC MICHAEL, MORTON SCHOOL	61.11	22
4440	B	DR. ETHEL ALLEN SCHOOL	62.16	23
3409	N	MASTERY CHARTER @ SMEDLEY	65.45	36
5250	H	DUNBAR, PAUL L. SCHOOL	68.42	13
4220	C	BLAINE, JAMES G. SCHOOL	72.41	21
4560	I	WILLIAM D. KELLEY SCHOOL	72.41	21
5390	D	POTTER-THOMAS SCHOOL	73.33	33
5490	E	CAYUGA SCHOOL	81.82	27
3424	A	UNIVERSAL ALCORN CHARTER	82.14	23
1230	S	BRYANT, WILLIAM C. SCHOOL	83.33	25
3410	L	UNIVERSAL CHARTER @ BLUFORD	96.67	29

Appendix F: Construct and Sub-construct Reliabilities

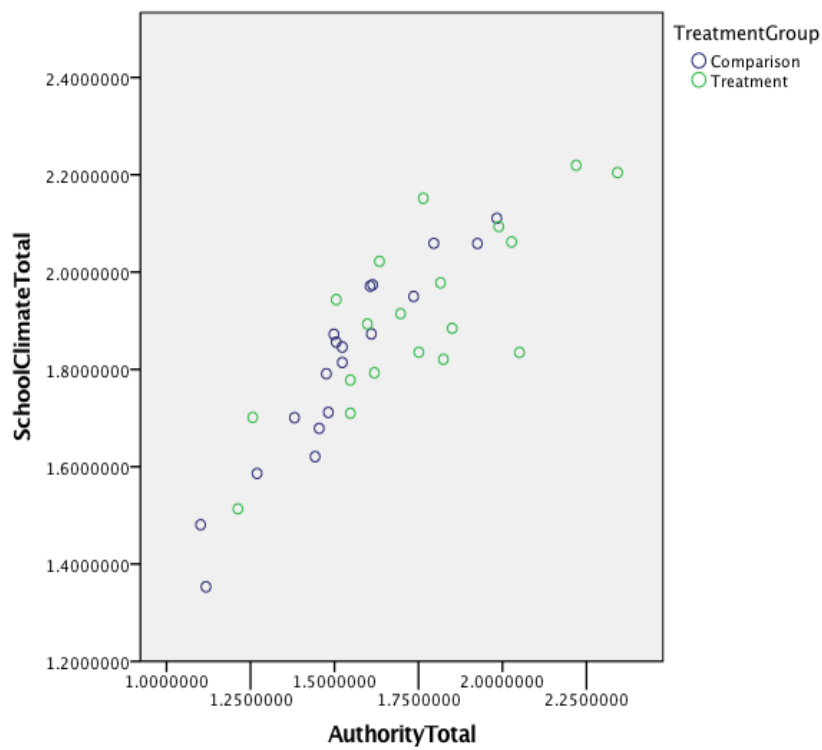
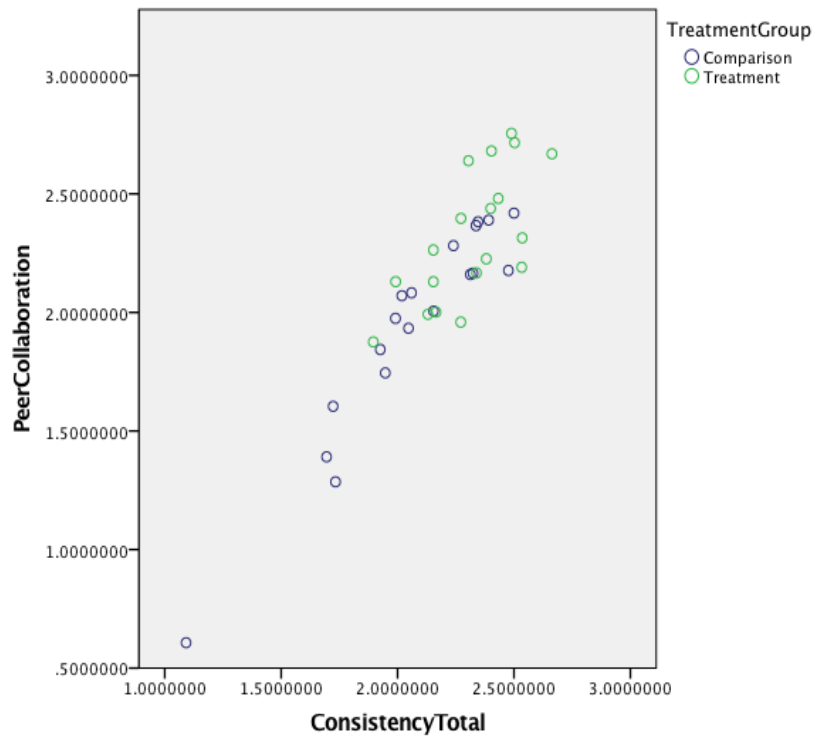
Constructs/Subscales		
School Leadership (also, Individual Authority)	<i>Items</i>	<i>Cronbach's Alpha</i>
Expectations & Feedback	5	0.939
Inclusive leadership	5	0.945
<i>Overall</i>	<i>10</i>	<i>0.961</i>
Parent/Guardian-Community Ties	<i>7</i>	<i>0.896</i>
Professional Capacity		
Innovation	5	0.878
Peer Collaboration	7	0.843
Quality of PD: Content focus and duration	11	0.883
Quality of PD: Collective participation, active learning, and learning span	6	0.69
<i>Overall</i>	<i>29</i>	<i>0.895</i>
School Climate		
Bullying	6	0.745
Respect	10	0.678
Challenges	10	0.829
<i>Overall</i>	<i>26</i>	<i>0.871</i>
Instruction		
Procedural	5	0.673
Conceptual	7	0.843
Student Engagement	7	0.804
Teacher Self-reflection	12	0.789
<i>Overall</i>	<i>31</i>	<i>0.865</i>
	<i>Items</i>	<i>Cronbach's Alpha</i>
Specificity (around instructional guidance)	<i>11</i>	<i>0.84</i>
Consistency		
Curriculum & Instruction	5	0.781
Professional Development	5	0.734
<i>Overall</i>	<i>10</i>	<i>0.792</i>
Authority		
Institutional	13	0.892
Normative	6	0.835
<i>Overall</i>	<i>19</i>	<i>0.897</i>
Power	2	0.228
Stability		
Mobility/turnover	6	0.743
Student absenteeism/tardiness	3	0.917
<i>Overall</i>	<i>9</i>	<i>0.847</i>

Appendix G: Minimum survey responses for scoring

	Minimum Scores	Total Sub-constructs
School Leadership	1	2
Professional Capacity	2	4
School Climate	2	3
Instruction	2	4
Consistency	1	2
Authority	1	2
Stability	1	2

	Minimum Responses	Total Items in sub-construct
Expectations & Feedback	3	5
Inclusive Leadership	3	5
Parent/Guardian-Community Ties	4	7
Innovation	3	5
Peer Collaboration	4	7
Quality of PD: Content	6	11
Quality of PD: Learning	3	6
Bullying	3	6
Respect	5	10
Challenges (All)	5	10
Procedural Instructional Strategies	3	5
Conceptual Instructional Strategies	4	7
Student Engagement	4	7
Teacher Self-Reflection	6	12
Specificity	6	11
Consistency—Curriculum & Instruction	3	5
Consistency—Professional Development	3	5
Institutional Authority	7	13
Normative Authority	3	6
Power	1	2
Stability—Mobility/turnover	3	6
Stability—Student absenteeism	2	3

Appendix H: Example scatterplots for high correlations



Appendix I: All Correlations

		Specificity	ConsistencyCurriculum	ConsistencyPD	ConsistencyTotal	InstitutionalAuthority	NormativeAuthority	AuthorityTotal	PowerTotal	Stability_mobility	Stability_absenteeism	StabilityTotal
ExpectationsFeedback	Pearson Correlation	.006	.463	.675	.554	.620	.760	.737	.325	.678	.312	.576
	Sig. (2-tailed)	.972	.006	.000	.001	.000	.000	.000	.065	.000	.072	.000
	N	34	34	34	34	34	34	34	33	34	34	34
InclusiveLeadership	Pearson Correlation	-.001	.482	.640	.573	.606	.757	.728	.337	.570	.414	.573
	Sig. (2-tailed)	.997	.004	.000	.000	.000	.000	.000	.055	.000	.015	.000
	N	34	34	34	34	34	34	34	33	34	34	34
SchoolLeadershipTotal	Pearson Correlation	-.004	.481	.680	.579	.633	.783	.758	.338	.638	.384	.595
	Sig. (2-tailed)	.982	.004	.000	.000	.000	.000	.000	.054	.000	.025	.000
	N	34	34	34	34	34	34	34	33	34	34	34
ParentGuardianTiesTotal	Pearson Correlation	.374	.231	-.115	.135	.000	-.050	-.032	-.002	-.056	.130	.045
	Sig. (2-tailed)	.029	.189	.517	.446	.998	.777	.859	.993	.755	.464	.802
	N	34	34	34	34	34	34	34	33	34	34	34
Innovation	Pearson Correlation	-.359	.517	.631	.603	.353	.426	.393	-.031	.299	.303	.351
	Sig. (2-tailed)	.037	.002	.000	.000	.040	.012	.021	.864	.085	.082	.042
	N	34	34	34	34	34	34	34	33	34	34	34
PeerCollaboration	Pearson Correlation	.240	.922	.660	.904	.541	.587	.581	.016	.381	.314	.405
	Sig. (2-tailed)	.171	.000	.000	.000	.001	.000	.000	.928	.026	.070	.017
	N	34	34	34	34	34	34	34	33	34	34	34
PDContent	Pearson Correlation	-.321	.494	.424	.528	.179	.320	.241	-.404	.155	-.098	.032
	Sig. (2-tailed)	.064	.003	.013	.001	.311	.065	.169	.020	.382	.581	.859
	N	34	34	34	34	34	34	34	33	34	34	34
PDLearning	Pearson Correlation	.277	.580	.587	.631	.754	.674	.749	.591	.589	.521	.648
	Sig. (2-tailed)	.112	.000	.000	.000	.000	.000	.000	.000	.000	.002	.000
	N	34	34	34	34	34	34	34	33	34	34	34
ProfessionalCapacityTotal	Pearson Correlation	.025	.880	.763	.916	.605	.661	.650	.044	.461	.336	.465
	Sig. (2-tailed)	.887	.000	.000	.000	.000	.000	.000	.810	.006	.052	.006
	N	34	34	34	34	34	34	34	33	34	34	34
Bullying	Pearson Correlation	-.008	.566	.724	.666	.678	.825	.784	.354	.612	.375	.575
	Sig. (2-tailed)	.965	.000	.000	.000	.000	.000	.000	.043	.000	.029	.000
	N	34	34	34	34	34	34	34	33	34	34	34
Respect	Pearson Correlation	.385	.690	.625	.722	.788	.840	.855	.560	.706	.586	.754
	Sig. (2-tailed)	.025	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000
	N	34	34	34	34	34	34	34	33	34	34	34
Challenges	Pearson Correlation	-.067	.387	.524	.474	.771	.674	.769	.266	.656	.458	.649
	Sig. (2-tailed)	.707	.024	.001	.005	.000	.000	.000	.135	.000	.006	.000
	N	34	34	34	34	34	34	34	33	34	34	34
SchoolClimateTotal	Pearson Correlation	.092	.608	.693	.689	.818	.865	.884	.411	.726	.493	.710
	Sig. (2-tailed)	.805	.000	.000	.000	.000	.000	.000	.018	.000	.003	.000
	N	34	34	34	34	34	34	34	33	34	34	34
Procedural	Pearson Correlation	.156	.418	.122	.366	.277	.308	.291	.064	.290	-.074	.124
	Sig. (2-tailed)	.378	.014	.491	.033	.113	.076	.095	.725	.096	.679	.485
	N	34	34	34	34	34	34	34	33	34	34	34
Conceptual	Pearson Correlation	.403	.737	.440	.689	.572	.536	.581	.157	.314	.241	.323
	Sig. (2-tailed)	.018	.000	.009	.000	.000	.001	.000	.383	.071	.171	.062
	N	34	34	34	34	34	34	34	33	34	34	34
StudentEngagement	Pearson Correlation	-.010	.454	.418	.489	.551	.588	.604	.025	.353	.192	.317
	Sig. (2-tailed)	.953	.007	.014	.003	.001	.000	.000	.889	.040	.278	.068
	N	34	34	34	34	34	34	34	33	34	34	34
TeacherReflection	Pearson Correlation	-.092	.625	.536	.656	.300	.410	.361	-.205	.180	.296	.279
	Sig. (2-tailed)	.607	.000	.001	.000	.084	.016	.036	.253	.308	.089	.110
	N	34	34	34	34	34	34	34	33	34	34	34
InstructionTotal	Pearson Correlation	-.021	.711	.374	.671	.361	.451	.403	-.205	.234	.045	.162
	Sig. (2-tailed)	.905	.000	.029	.000	.036	.007	.018	.253	.182	.800	.360
	N	34	34	34	34	34	34	34	33	34	34	34

Significant at p=0.05

Correlation is greater than >= 0.8

Appendix J: Interview Protocols

Teacher Interview

Introduction

Thank you for agreeing to speak with me today. I'm conducting this interview as part of a study of school improvement efforts in the School District of Philadelphia that is being conducted by the *Shared Solutions* partnership, which is a joint effort of the School District of Philadelphia's Office of Research and Evaluation and the University of Pennsylvania's Graduate School of Education. Our aim in this interview is to increase our understanding of what it is like to be a teacher at your school and in the District, and to better understand the various activities that you and your school are participating in related to instruction, leadership, parent involvement, and other areas.

I would like to tape record this interview so that it can be transcribed. There will be no links between your responses and your name or your school's name. Direct quotes will be used in research reports, but will not be attributable to any individual person, and no names will be used in the research products that result from our study. Is my tape-recording the interview okay with you?

Great. Before we begin, do you have any questions or concerns?

I'll start the recorder and begin the interview now.

Core School Improvement Questions

We are interested in learning about the specific details of your school's approach to five key dimensions of improvement including [*show graphic**]: school leadership, parent-community ties, professional capacity, school climate, and instruction. The purpose of these interviews, in combination with the District-wide principal, teacher, student, and parent/guardian surveys, is to help to create a more holistic picture of "success" in schools—moving beyond student test scores to examine the various dimensions of school improvement efforts.

For each of these five areas *[motion to graphic]*, we will ask you questions about your school's overall approach and philosophy, how the school's approach is communicated to you, what role you play in these efforts, and lastly, we will ask for your perspective on your school's strengths and challenges in each of these areas.

1. Leadership

- a. Would you describe your principal's leadership style?
 - i. If not addressed in the answer, ask:
 - 1. Would you describe how collaborative versus top-down your principal's leadership style is?
- b. How would you describe opportunities for teacher leadership or involvement in school-level decision-making?
- c. ***District Transformation Schools only:*** How would you describe your involvement in the design, creation, and implementation of the "transformation plan" for your school?
- d. What are some of the strengths and challenges that you associate with your school's leadership model?

2. Parent / Community / Families

- a. What kinds of specific activities and/or supports **do you** engage in with your students' families?
- b. Thinking of these activities you just discussed, how would you characterize your school's vision for parent and community engagement and the importance placed on developing these relationships?
 - i. If not addressed in the answer, ask:

1. To what extent is parent/community engagement prioritized?
 2. To what extent is there a consistent, school-wide effort or set of activities as opposed to each teacher doing his or her own thing?
- c. What are your and your school's successes and challenges with family and community engagement and outreach?
- i. If not answered in response to the question above, ask:
1. Are there any school and/or District/ CMO supports that you are currently getting or that you would like to get to help with your efforts in this area?

Next we want to ask you a bit about your school's approach to "professional capacity"—including professional development opportunities, feedback and evaluation, and the work environment.

3. Professional Capacity

- a. Would you describe any opportunities you have to interact or collaborate with other teachers or school staff?
- i. If not addressed in the answer, ask:
1. Would you describe a specific activity that you collaborate with other teachers or school staff on?
 2. Are collaboration opportunities available during the school day, or do they occur before and after school?
- b. We know some professional development is mandatory—provided by your school and/or the District/CMO, and some you may choose for yourself. We want to get a sense of what professional development is like at your school. Would you please describe your school's approach to professional development?
- i. If not addressed in the answer, ask:

1. What are the content of the sessions?
 2. What types of activities do you participate in during sessions?
(e.g., group work v. lecture)
 3. How consistent or cohesive are the professional development activities that your school provides – that is, do they build on each other, or are they separate, specialized topics?
 4. How helpful were these sessions to you?
- c. Feedback and evaluation are two important components of building professional capacity. What is the nature and quality of feedback you receive on your instruction?
- i. If not addressed in the answer, ask:
 1. Who evaluates you? (e.g., principal, coach, mentor, peer)
 2. How often are you evaluated?
 3. What are the format and/or criteria of the evaluation? (e.g., formal versus informal observation and what types of activities you are evaluated on)
- d. To what extent are there penalties and/or rewards (incentives) associated with any of the observation and evaluation activities you just described?
- i. If not addressed in the answer, ask:
 1. Who determines these penalties and/or rewards? (e.g., the District/CMO, or other sources)
 2. Are these penalties and/or rewards tied to student achievement?

3. Would you describe the impact that these penalties and/or rewards have on your experience as a teacher—For example, do they motivate you or, do you find them stressful?
- e. How would you describe the overall professional culture at your school?
 - i. For example, are staff members highly committed with a sense of shared values and responsibility, or do you feel like you work mostly in isolation? Is the environment supportive or highly structured?
- f. Thinking back on these different areas of professional capacity—professional culture, collaboration, professional development, and feedback and evaluation: What would you say are the greatest strengths and challenges you've experienced at your school in these areas?

4. School Climate

- a. How would you describe the overall learning environment *for students* at your school?
- b. What steps do you and your school take to create and maintain this learning environment? For instance, are there any specific policies or activities related to school or classroom climate?
 - i. If not addressed in the answer, ask:
 1. Is there a specific discipline and/or safety policy? Describe.
 2. Do you have behavior contracts with students? Describe.
 3. Are these school-wide efforts or are they individualized in that they vary across teacher?

- c. What are the most successful climate and safety policies or programs you have participated in, and why do you think they were so successful?
- d. What are some of the challenges your school faces in creating a safe learning environment for students?

5. Instruction

- a. How would you describe your school's academic expectations for students?
 - i. If not addressed in the answer, ask:
 - 1. What drives these expectations? (For example: your principal, the District/CMO policy, teachers)
- b. How would you describe the overall approach your school takes to helping students meet these expectations in terms of both pedagogy and instructional materials?
 - i. For example: use of the Common Core, specific curriculum or textbook, particular instructional strategies, tutoring before or after school, pullouts, etc.
- c. We know that different schools allow teachers different amounts of discretion in terms of choosing objectives, curriculum, pacing, and instructional strategies. Are there any areas over which you think having more discretion would help improve student learning, and how so?
 - i. If not covered in response to the above question, prompt on:
 - 1. Choice of learning objectives/content
 - 2. Pacing of content
 - 3. Instructional strategies

4. Assessment/grading of students

5. Behavior policy

ii. If not covered in response to the above question, prompt on:

1. How would increased discretion over these areas help improve student learning?

d. To what extent is there a tension or consistency between what you do or would like to do in the classroom versus the expectations of your principal, the District and/or CMO, or the state?

e. In evaluating student success, are there any “non-traditional” measures or assessments that you or your school uses?

i. For example, character report cards or student portfolios.

f. How would you describe the successes and challenges you face as a teacher with regard to instruction?

i. If not covered in response to the above question, prompt on:

1. What about in terms of meeting the needs of diverse learners: for example: ELLs, special needs (students with IEPs), students who are behind or struggling, and/or students with behavior disorders?

Now that we have a good sense of your school’s approach to these various dimensions of improvement, we’d like to step back and have you reflect a bit on how you see these dimensions fitting into your school’s overall approach to improvement and how effective you believe these efforts are.

6. Reflections on School Improvement Efforts

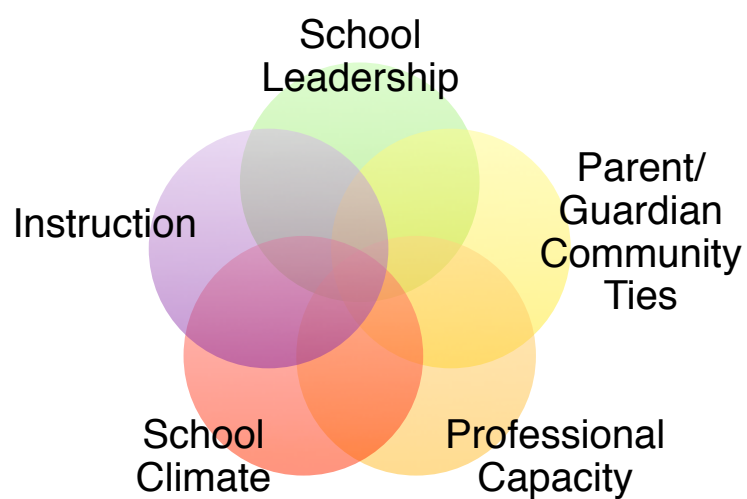
- a. Thinking back on these five dimensions of school improvement [*motion to graphic*]*—*school leadership, parent-community ties, professional capacity, school climate, and instruction*—*Is there a particular dimension (or dimensions) that stands out to you as being prioritized or as particularly important to your school's approach to improvement?
 - i. If relevant (and not addressed) in the answer, ask:
 1. How do these dimensions fit together? That is do you feel as though the dimensions support one another, or is there any conflict or tension among these components?
- b. What do you believe are the most influential drivers of this approach to improvement?
 - i. For example: To what extent is your school's approach to improvement influenced by District/CMO policy (e.g., status as Renaissance Charter, Promise Academy, District Transformation), you, teachers, parents/guardians, students, and/or the broader community?
- c. How are these priorities or this approach to school improvement communicated and re-enforced to you?
 - i. For example: through professional development, school handbooks, or instructional guidance systems
- d. To what extent do you feel that your school's approach to improvement is stable? (e.g., consistent over time)
- e. What about challenges? Would you describe any dimension that stands out to you as particularly challenging at your school?

f. Is there anything else you think we should know, to understand your school?

Are there any questions that you would like to ask me?

Thank you for your time.

*School improvement graphic referenced during interviews



Principal Interview

Introduction

Thank you for agreeing to speak with me today. I'm conducting this interview as part of a study of school improvement efforts in the School District of Philadelphia that is being conducted by the *Shared Solutions* partnership, which is a joint effort of the School District of Philadelphia's Office of Research and Evaluation and the University of Pennsylvania's Graduate School of Education. Our aim in this interview is to increase our understanding of what it is like to be a principal at your school and in the District, and to better understand the various activities that you and your school are participating in related to instruction, leadership, parent-guardian involvement, and other areas.

I would like to tape record this interview so that it can be transcribed. There will be no links between your responses and your name or your school's name. Direct quotes will be used in research reports, but will not be attributable to any individual person, and no names will be used in the research products that result from our study. Is my tape-recording the interview okay with you?

Great. Before we begin, do you have any questions or concerns?

I'll start the recorder and begin the interview now.

I. Background Information

1. First we want to ask you a little bit about your professional background. How long have you been a principal at this school?
2. Did you serve as a principal at another school before this one?
 - a. Public, charter, private, or other (e.g., magnet)?
 - b. For how long?
3. What is your background prior to becoming a principal?

a. If not addressed in the answer, ask:

i) Do you have any teaching experience?

ii) If “yes” & not addressed in the answer, ask:

(1) How many years?

(2) What type of school(s)? (e.g., public, charter, private)

(3) What grades and subjects?

Core School Improvement Questions

We are interested in learning about the specific details of your school’s approach to five key dimensions of improvement including *[show graphic]*: school leadership, parent-community ties, professional capacity, school climate, and instruction. The purpose of these interviews, in combination with the District-wide principal, teacher, student, and parent/guardian surveys, is to help to create a more holistic picture of “success” in schools—moving beyond student test scores to examine the various dimensions of school improvement efforts.

For each of these five areas *[motion to graphic]*, we will ask you questions about your school’s overall approach and philosophy, how the school’s approach is communicated to your staff, what role you play in these efforts, and lastly, we will ask for your perspective on your school’s strengths and challenges in each of these areas.

1. Leadership

- a. ***For Principals at District Transformation Schools ONLY:*** How would you describe your involvement in the design, creation, and implementation of the “transformation plan” for your school?
- b. How would describe the leadership model at your school?
 - i. If not addressed in the answer, ask:

1. Staffing: Are there assistant principals? Deans? Teacher leaders?
- c. How would you describe your leadership style?
 - i. If not addressed in the answer, ask:
 1. Would you describe how collaborative versus top-down your leadership style is?
 - d. Do you have discretion to choose your own leadership model and style, as opposed to it coming from the District/CMO?
 - e. We know that principals of schools have varying levels of discretion over decisions such as budgeting, hiring and firing, choosing curriculum and textbooks, and setting behavioral policies. What changes in your discretion do you think would help to improve teaching and learning at your school?
 - f. Would you describe any opportunities at your school for teacher leadership or involvement in school-level decision-making?
 - i. ***For Principals at District Transformation Schools ONLY:*** Would you describe opportunities for teachers to get involved in the design, creation, and implementation of the “transformation plan” for your school?
 - g. Would you describe your school’s approach to assessment and data—thinking in particular about what types of assessments and data you use, and how you use them?
 - i. For example: Do you use assessments or data (e.g., state tests, benchmarks, surveys) in making staffing decisions, identifying students who need extra help, choosing instructional programs/interventions, etc.?

- h. Can you talk about the strengths you have in using data for different purposes and what the challenges are?
- i. What are some of the strengths and challenges that you associate with your school's leadership model overall?

2. Parent / Community / Families

- a. What kinds of specific activities and/or supports does your school offer to families and the community?
- b. How do you determine what activities and/or supports to offer?
 - i. For instance, does the District/CMO determine? Do teachers recommend?
- c. Thinking of these activities you just discussed, how would you characterize your school's vision for parent and community engagement and the importance placed on developing these relationships?
 - i. If not addressed in the answer, ask:
 - 1. To what extent is parent/community engagement prioritized?
 - 2. What is the motivation behind engaging with parents/guardians and the community in these ways and offering these supports?
- d. What are some of your school's successes and challenges with family and community engagement and outreach?
 - i. If not addressed in the answer, ask:
 - 1. Are there any school or District/ CMO supports that you are currently getting or that you would like to get to help with your efforts in this area?

Next we want to ask you a bit about your school's approach to "professional capacity"—including professional development opportunities, feedback and evaluation, and work environment.

3. Professional Capacity

- a. How would you describe the overall professional culture of your school?
 - i. For example, are staff members highly committed with a sense of shared values and responsibility, or do you feel like you work mostly in isolation? Is the environment supportive or highly structured?
- b. Would you describe how your discretion over hiring and firing impacts the professional culture at your school?
 - i. For instance, do you look for specific traits in hiring people?
- c. Can you briefly describe the types of professional development you received during 2014-2015 school year (including summer 2014) and how well these offerings fit your needs?
 - i. If not addressed in the answer, ask:
 1. What type of PD do you participate in? (E.g., District, CMO, independent)
 2. What are the content of the sessions?
 3. What types of activities do you participate in during sessions? (e.g., group work v. lecture)
 4. How consistent are the PD activities – do they build on each other, or are they separate, specialized topics?
 5. How helpful were these sessions to you?

- d. Now, we want to ask about the professional development that you provide for your teachers. Can you describe any professional development your school provides for teachers that is separate from what is provided by the District/CMO?
 - i. If not addressed in the answer, ask:
 - 1. How much discretion do you have in choosing what to offer?
 - 2. What are the content of the sessions?
 - 3. What types of activities do you offer during sessions? (e.g., group work v. lecture)
 - 4. How consistent are the PD activities you provide – do they build on each other, or are they separate, specialized topics?
- e. Feedback and evaluation are two important components of building professional capacity. What is the nature and quality of the feedback you provide teachers on their instruction?
 - i. If not addressed in the answer, ask:
 - 1. How often do you observe and/or evaluate teachers?
 - 2. What is the format and/or criteria of the evaluation? (e.g., formal v. informal observation and what types of activities you evaluate teachers on)
 - 3. How much of the evaluation do you do because it is required by the District/CMO, and how much do you do because you believe it is effective and/or helpful?
- f. Would you describe any penalties and/or rewards (school-level or District-level) associated with your evaluation of teachers?
 - i. If not addressed in the answer, ask:

1. Are these penalties or rewards tied to student achievement?
- g. How are you evaluated as a principal?
- i. If not addressed in the answer, ask:
 1. Who evaluates you?
 2. How often are you evaluated?
 3. What are the format and/or criteria of the evaluation? (e.g., formal versus informal observation and what types of activities you are evaluated on)
 4. Would you describe any ways in which your evaluation is tied to student achievement?
- h. To what extent are there penalties or rewards associated with your evaluation as a principal?
- i. If not addressed in the answer, ask:
 1. Where do these penalties and/or rewards come from? (e.g., the District/CMO, or other sources)
 2. Are these penalties and/or rewards tied to student achievement?
- i. Thinking back on these different areas of professional capacity—professional culture, collaboration, professional development, and feedback and evaluation: What would you say are the greatest strengths and challenges you've experienced at your school in these areas?

4. School Climate

- a. How would you describe the overall learning environment *for students* at your school?

- b. What steps does your school take to create and maintain this learning environment? For instance, are there any specific policies or activities related to school climate?
 - i. If not addressed in the answer, ask:
 - 1. Is there a specific discipline and/or safety policy? Describe.
 - 2. Do you have behavior contracts with students? Describe.
 - 3. Are these school-wide efforts or are they individualized in that they vary across teacher?
- c. How would you describe your role, as principal, in creating and maintain this learning environment?
- d. What are the most successful climate and safety policies or programs you have participated in, and why do you think they were so successful?
- e. What are some of the challenges your school faces in creating a safe learning environment for students?

5. Instruction

- a. How would you describe your school's academic expectations for students?
 - i. If not addressed in the answer, ask:
 - 1. What drives these expectations? (For example: you, District/CMO policy, teachers)
- b. How would you describe the overall approach your school takes to helping students meet these expectations in terms of both pedagogy and instructional materials?

- i. For example: use of the Common Core, specific curriculum or textbook, particular instructional strategies
- e. To what extent is your school's overall approach driven by your and your teacher's preferences, District/CMO policy, research, state-level policy such as the Common Core State Standards, or other factors?
- d. We know that different schools allow teachers different amounts of discretion in terms of choosing curriculum, pacing, and instructional strategies. Would you describe the key determinants/factors that impact the level of discretion you allow teachers to have in these areas?
 - i. If not addressed in the answer, ask:
 - 1. How does teacher evaluation and/or student performance impact the level of discretion you allow teachers to have?
 - 2. How, if at all, do outside demands such as District-level policies or federal policy initiatives such as No Child Left Behind Waivers and Race to the Top impact the level of discretion you allow teachers to have?
- e. How would you describe the successes and challenges your school faces with regard to instruction?
- f. How would you evaluate your school in terms of meeting the needs of diverse learners? (e.g., ELLs, special needs (students with IEPs), students who are behind or struggling, and/or students with behavior disorders)
- g. What support(s) from the District/CMO do you receive to help in meeting the needs of diverse learners, and what additional support(s) do you think you need?
 - i. Make sure respondent differentiates between District and CMO if appropriate

Now that we have a good sense of your school's approach to these various dimensions of improvement, we'd like to step back and learn about how you see these dimensions fitting into your school's overall approach to improvement and how effective you believe these efforts are.

6. Reflections on School Improvement efforts

- a. Thinking back on these five dimensions of school improvement [*motion to graphic*]*—*school leadership, parent-community ties, professional capacity, school climate, and instruction*—*can you describe how these different components are prioritized and how they fit into your school's overall theory of action for school improvement?
 - i. If not addressed in the answer, ask:
 1. Are all five dimensions pushing in the same direction?
 2. Would you describe any conflict or tension among these components?
 - ii. ***District Transformation Schools only:*** What changes were made to your school's priorities or approach to improvement when applying for District Transformation and developing your Transformation plan, and why?
- b. What do you believe are the most influential drivers of this approach to improvement?
 - i. For example: To what extent is your school's approach to improvement influenced by District/CMO policy (e.g., status as Renaissance Charter, Promise Academy, District Transformation), you, teachers, parents/guardians, students, and/or the broader community?

- c. How do you communicate your school's priorities or approach to improvement to the school community?
 - i. For example: through professional development, handbooks, or instructional guidance systems
- d. Would you give a specific example that demonstrates ways in which your school generates buy-in or support for its approach to improvement?
- e. To what extent do you feel that your school's approach to improvement is stable? (e.g., consistent over time)
- f. Is there anything else you think we should know, to understand your school?

Are there any questions that you would like to ask me?

Thank you for your time.

Appendix K: Site Visit Documents

Pre-interview information sheet.**SDP-Penn GSE Shared Solutions Comprehensive School Site Visit Schedule****Pre- Interview Information Sheet**

Name: _____

School: _____

How long have you been teaching at this school? _____ years

What type of school(s) have you worked in previously? Please check all that apply.

- ☐ Public
- ☐ Charter
- ☐ Private
- ☐ Not Applicable (did not work at any school prior to this one)
- ☐ Other, please specify: _____

What grade(s) and subject(s) do you currently teach?

Do you hold any other positions at your school? (For example, grade-level coordinator, head of the department)? Please circle your answer.

Yes No

If yes, what position(s) and how long have you served in that/those role(s)?

Are you interested in serving on the Teacher Advisory Group for Shared Solutions? As a member, we will ask you periodically to give the Shared Solutions Partnership feedback on our work, including the analysis of survey results and community engagement. Please circle your answer.

Yes No

If yes, please provide us with your email address so we can contact you about Advisory Board activities:

Interview summary sheet.

Participant First Name: **Position:**

School:

Interviewer:

Date and time of interview: **Length of interview:**

Date of interview summary sheet completion:

Five Dimensions. Did any of the five areas for improvement in particular (school leadership, parent-community ties, professional capacity, school climate, or instruction) stand out to you as particularly important or problematic? Explain.

Approach to Improvement. Summarize big ideas about the interviewee's school's approach to improvement (e.g., is it very top down? A lot of parent-community involvement? Teacher driven? ALSO things like: Does the school focus more on discipline or instruction? Is parent-community engagement a top priority or is the focus more on developing strong school leaders?)

Successes. Major themes related to the interviewee's and/or his/her school's successes with regard to school improvement.

Challenges/Support. Major themes about perceptions of challenges that the interviewee or his/her school face and about suggestions for improvement in supports from the principal, District/CMO, or elsewhere.

1. What information did you fail to get (for whatever reason) from this interview? How can we obtain the needed information?

2. Are there questions the interviewee was confused by? How could the question(s) be improved?

3. Are there certain new questions or issues we should consider as we plan for and execute the next steps of data collection? (For example, were there any questions the respondent felt uncomfortable answering? Is there something we didn't ask that you think we should?)

4. Is there anything else you think we should know when reviewing the interview transcript and/or analyzing data? (e.g., something that stood out to you, special circumstances, or additional context for the interview)

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